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A Cultural Assessment of Tripler Regional Medical Center

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By

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Can satisfaction of an organization be improved by using Total Quality Management methods? Can the changes in satisfaction be measured and quantified using a survey instrument? These were just a few of the questions facing the leadership at Tripler Regional Medical Center. Tripler Regional Medical Center, like all other military hospitals, is at a crossroad. The beneficiaries of military medicine are now being offered choices in whether or not to seek care in military facilities. The revenues for Tripler are being based primarily on the number of beneficiaries who choose to seek care at this hospital. Whether or not Tripler is able to retain its position as the facility of choice for its target population will be based on the ability to add value to the beneficiaries. The path Tripler Regional Medical Center has chosen to achieve the level of service quality required to sustain or grow its customer base is through embracing Total Quality Management (TQM). Over the past two years, Tripler has invested heavily in TQM training and in employing TQM management methods. The goals of this training include improvement in management, service quality, and in employee satisfaction, among other goals. A central part of a quality program is the systematic use of measures to assess critical aspects of system performance. This study will attempt to quantify whether the Tripler quality effort has resulted in quantifiable improvements in staff satisfaction. The study will use a modified Litwin-Stringer Organization Climate Questionnaire for data collection. Both descriptive and inferential statistics methods will be used in analysis of the data. Results of this study will be compared to findings of a similar study done two years previous. The methods conducted in this study will replicate the methods used in the earlier study in order to better enable effective analysis.

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Over the past two years, Tripler has invested heavily in TQM training and in employing TQM management methods. The goals of this training include improvement in management, service quality, and in employee satisfaction, among other goals. A central part of a quality program is the systematic use of measures to assess critical aspects of system performance.

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CHAPTER 1

INTRODUCTION

An organization's most important asset is its employees. The ability to unleash the "human factor" is often what distinguishes the superior organization from the average. Tripler Regional Medical Center (TAMC) adopted Total Quality Management (TQM) as its management philosophy in 1994. Batalden suggests that "employee mindedness" is an essential principle in the success of implementing TQM in health care organizations (Gustafson and Hundt 1995). In truly expressing employee mindedness, organizations can remove the organizational barriers that hinder peak performance of the human factor (Ibid.). Adams suggests that organizations can obtain corporate peak performance only if employees perform at peak levels (Lickman et al. 1993). The principle goal of managing organizational culture is to enhance individual and corporate performance (Fottler et al. 1994). Research shows a significant correlation between senior leaders understanding of organizational culture and success in shaping and sustaining TQM in organizations (Rakich, Longest and Darr 1992).

Conditions which Prompted this Study

Organizational culture has been called a "pivotal factor" in successful TQM implementation (Carmen et al. 1996). Organizational culture can be a difficult factor for a health care executive to quantify. Philip Crosby calls culture "the predictable behavior in a group or an organization" that result from what employees have been led to believe works and by examples set by leaders (Crosby 1987). Terrence Deal suggests that

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organizational culture is the "unconscious, taken-for-granted, elusive, shared pattern of values that powerfully shapes" meaning and behavior within the organization (Solbach et al. 1990). Martin Maehr describes organizational culture as the collective goals and meaning shared by the employees of an organization (Ibid.). These collective goals and meanings, according to Maehr, shape the employee's level of satisfaction and influence their commitment to the organization.

Any attempt to successfully change an organization requires continuous assessment of organizational culture (Fottler 1994). The debate over how to assess organizational culture focuses on the pros and cons of qualitative or quantitative methods. Most researchers agree that quantitative methods are best suited for assessing organizational values, norms or beliefs (Ibid.).

Tripler conducted a baseline cultural assessment study in 1994 to gain an understanding of the attitudes and perceptions of the hospital staff prior to implementing TQM (Floro 1994). This study helped to establish quantitative measures of the organizational climate with the intent of using this baseline in subsequent studies after implementing TQM (Ibid.). The Process Improvement Committee (PIC) chaired by the CEO of Tripler, directed that a follow-on study be conducted to determine if employee attitudes and perceptions had changed since the shift to the TQM philosophy.

Statement of the Management Question

Tripler has pursued the TQM management philosophy for more than 2 years. This pursuit has included the expenditure of considerable financial resources and employee training time. The senior leaders desired feedback on the return of the TQM investment. The baseline survey conducted in 1994 provided the leadership at Tripler

with an understanding of the attitudes and perceptions of the staff prior to TQM implementation. The PIC directed the cultural assessment survey be repeated in order for the leadership at Tripler to ascertain whether there has been an improvement in these attitudes and perceptions. Specifically the management questions to be addressed by the repeated survey are to:

1) measure current attitudes of the staff at Tripler,

2) measure the change in attitudes since 1994,

3) identify problem areas,

4) develop recommendations for improvement.

Literature Review

The health care industry has been under considerable pressure to improve the quality, reduce the cost, and improve access to health care services (Motwani et al. 1996). Some writers suggest "the health care industry (in the U.S.) is in crisis" (Ernst 1994). In 1994, National health expenditures reached $949.4 billion, or $3,510 per person in the United States (HCFA, 1996). That same year, the national expenditures for hospital care had grown to $338.5 billion (www.hcfa.gov/stats/tab2kdf.txt). Given these costs, hospitals have become the prime targets of customer groups such as patients, employers, third party payers, and politicians (Ernst 1994). These groups have become increasingly dissatisfied with the outcomes of services provided by hospitals (Ibid.). This has forced hospitals to reevaluate their mode of operation and to make changes (Ibid.). Hospitals have increasingly embraced TQM and continuous quality improvement with a belief that these management philosophies will improve the quality and efficiency of health services (Carmen et al. 1996).

Several additional forces have helped push hospitals to adopt TQM. By 1994, most hospital managers viewed the move towards TQM as inevitable, most noticeably due to the Joint Commission's requirement for this philosophy (Ernst, 1994). In 1996 the Baldrige Award, a prestigious national award based on TQM, expanded to include an assessment specifically for health care organizations (Jennings and Wesfall, 1994).

Griffith et al. (1995) proclaimed that health care in the United States is in a state of "revolution" that is creating radical and permanent changes in the system. Griffith further suggests that all institutions will be forced to adapt to these changes quickly if they wish to survive. Griffith offers TQM as a means to enable health care organization to survive these changes through dramatic improvements in quality and efficiency. With these pressures for change, the reader can understand the lure of TQM's "promise of increased effectiveness coupled with greater efficiency" and "the opportunity to achieve better outcome with fewer resources" (Counte et al. 1995).

TQM is quickly becoming widely accepted and practiced in the health care setting. This was not the case just a few years ago. As recently as 1994, one author stated that "TQM, though not a new concept, *is new to the hospital industry*" (emphasis added) (Ernst 1994). The fact is; however, by 1992 over 58.5 percent of hospitals practiced TQM and 35.1 percent were planning to implement TQM (Robinson 1995). Conventional wisdom states that the transition to TQM requires years to fully measure the effects of change (Boerstler 1996). The debate over the actual length of time required to measure the change brought about by TQM is hotly debated. Recent research is now indicating that less time is required to show the effects of TQM in measurable ways (Ibid.). Irrespective of recent findings, with four to six years of experience with TQM in

health care settings, meaningful measures on the effectiveness of TQM should be available. This is in fact, now becoming true. A 1996 journal article reported on the findings of 41 recently published works concerning TQM in health care organizations (Motwani 1996). More empirical research is being published every month in leading health care journals.

Recent research found that hospitals seeking organization-wide change (TQM) must first focus on implementing cultural change (Boerstler 1996). This research found that without a clear cultural change, the impact of TQM is limited (Ibid.). Boerstler also found a clear link between a "flexible organizational culture" and successful implementation of TQM (Ibid.).

Current literature suggests a strong link between organizational culture and customer satisfaction (Carmen et al. 1996). Research shows that process improvement and improvements in employee's perceptions of empowerment produce improved customer satisfaction and improved efficiency (Ibid.). Other authors report that in select organizations devoted fully to the TQM philosophy, cost is increasing less rapidly, they have higher patient satisfaction and have higher physician ranking of quality compared to non-TQM practicing hospitals (Griffith et al. 1995).

Other research shows managers have taken for granted that TQM will benefit areas such as customer satisfaction, profitability, productivity, quality, and employee satisfaction (Bigelow and Arndt 1995). With the expectation that TQM will lead to greater quality comes the potential that process improvements may be contributed to TQM when other factors may have played a more significant role. Hawthorne showed that simply having the workforce believe that the process is being reviewed can result in

significant improvements in productivity. Although recent empirical evidence is now beginning to link TQM with measurable improvements, more research is clearly needed.

Purpose

The purpose of this study is to determine the organizational attitudes and perceptions after 2 years of TQM implementation effort. This study will establish the current attitudes of the staff and determine if differences exist between employee categories at Tripler. The study will determine if the attitudes and perceptions of the staff at Tripler have changed since 1994.

CHAPTER 2

METHODS AND PROCEDURES

The research method for this study is quantitative. Data will be collected for this study using a modified Litwin and Stringer Organizational Climate Questionnaire (Muchinsky 1976). A sample survey is provided as Appendix 1. Analysis of the data will be made using the computerized statistical application SPSS version 7.0 for Windows 95. Statistical assistance will be provided by researchers in the Clinical Investigation Division and Nursing Research, Tripler Regional Medical Center.

Survey Instrument

Litwin and Stringer designed the survey instrument used for this study. The original survey was developed in 1968 and contained 50 four-point Likert scaled questions (Floro 1994). The survey was designed to elicit responses from employees as to their agreement with statements about various facets of their organization (Litwin and Stringer 1968). The survey consisted of nine scales described below. The Litwin and Stringer survey given to Tripler in 1994 was modified from the original design. Floro added a tenth scale and modified the Likert scale to a five-point scale (Floro 1994).

The 1994 and the 1996 survey consists of ten constructs (also called scales), with each construct composed of between 4-8 questions. The ten constructs are:

1. Structure (8 questions): The perceptions of the level of bureaucracy within the organizational structure; the feeling about the amount of rules and red tape that constrain employees and workgroups.

2. Responsibility (7 questions): The feeling of being empowered to do ones job verses feeling supervisors double-check your work and decisions.

3. Reward (6 questions): The perceptions of an atmosphere that rewards individuals for a job done well; the degree that positive reinforcements are practiced as a management style verses punishment; the perception of fairness in the promotion and pay policies.

4. Risk (5 questions): The amount of risk and challenge from the organization and job; the level of emphasis placed on risk taking verses playing it safe.

5. Warmth (5 questions): The perception of an atmosphere of goodwill in the workgroup; the prevalence of open and friendly informal social groups.

6. Support (5 questions): The perceived amount of helpfulness of managers and coworkers; the degree of emphasis on mutual support from management and subordinates.

7. Standards (6 questions): The degree of importance placed on goals and performance standards; the emphasis of doing the right things well; the value of personnel and group goals.

8. Conflict (4 questions): The openness of managers and coworkers to different ideas and opinions; the degree to which problems are openly dealt with verses ignoring or smoothing them over.

9. Identity (4 questions): Sense of membership to the organization; feeling as a valuable member of the team; the importance the organization places on this individuality.

10. TQM (7 questions): The perceptions of the amount of commitment from top management towards TQM; the degree of importance the employee places on TQM; the amount of knowledge by employees of TQM principles.

Survey Reliability

The literature indicates a consistent level of reliability for the proposed survey instrument (Litwin and Stringer 1968; Muchinsky 1976; Counte et al. 1992; and Floro 1994). A common test to measure survey reliability is the Cronbach's alpha, which measures the stability or internal consistency of the instrument (Cronbach 1951). A high correlation indicates high test reliability while low correlation indicates low test reliability (Spatz 1992). Reliability is critical in social science measurements. Reliability allows the researcher to assess the degree of certainty that the test results are not subject to chance variation (Ibid.). A low degree of reliability results in uncertainty that the researchers' findings from the sample mirror the actual qualities of the population (Ibid.).

Floro used randomized block ANOVAs to ascertain the Cronbach's alpha for the ten scales of the instrument (Floro 1994). Floro reported six of the ten scales as having exceptionally high reliability (above .70), two showed good reliability (above .50) and two indicated questionable reliability (Floro 1994). The two constructs with questionable reliability were conflict at .19 and responsibility at .36 (Floro 1994). The level of the coefficient required to label a social science test highly reliable is debatable. Floro and Daniel (1978) both cite an alpha above .70 as highly reliable while Spatz suggests .80 or higher. In view of the disagreement over the appropriate alpha coefficient one must achieve, this test has shown to consistently achieve high levels of reliability.

Target Population

Tripler Regional Medical Center current workforce is about 2677 employees. Of this workforce, about 52 percent are military. The educational levels, skills, involvement in management, and responsibilities vary greatly depending on the position the employee holds. In reaching an understanding about the perceptions of the workforce, it would be useful to enable the researcher to categorize the workforce into logical workgroups in order to make meaningful comparisons. By categorizing the workforce into groupings such as physicians, nurses, and clerical staff, one could make comparisons to determine if a significant difference exists between these groups. The statistical term for breaking populations into logical groupings for the purpose of discovering patterns is known as stratification (Plesk 1994).

In order to make comparisons with the 1994 survey conducted by Floro, the proposed survey would replicate the groupings Floro devised. Floro divided the workforce into two major groupings, military and civilian (Floro 1994). Each of these groupings was further separated into seven sub-groupings; physicians, nurses, allied health professionals, technical, office and clerical support, service workers, and other. In order to aid the survey participant to correctly categorize their correct grouping, Floro included on the survey the following definitions, which will also appear on the 1996 survey:

1. Physicians: Staff and house staff (interns, residents, and fellows).

2. Registered Nurses: Clinical specialists, nurse practitioners and nurse educators.

3. Allied Health Professionals: Medical technologists, pharmacists, dietitians, physical and occupational therapists, social workers, psychologists, dentists, veterinarians, speech pathologists, and optometrist.

4. Medical Technicians: LPNs, medical specialists, nursing assistants, radiology technicians, pharmacy technicians, PT/OT assistants, EEG/EKG technicians, respiratory/pulmonary technicians, OR technicians, and phlebotomists.

5. Office/Clerical Support: Medical records technicians, secretaries, receptionists, transcriptionists, admitting clerks, personnel and legal specialist, finance and accounting specialists, computer operators, and communications specialist.

6. Service: Food service workers, environmental service workers, supply/warehouse personnel, security officers, and craftsmen.

7. Others: Administrators, chaplains, attorneys, and engineers.

Sampling allows one to make conclusions about the target population through the collection of information from only a select portion of the population (Cooper and Emory 1995). A precondition to valid statistical inference is the random selection of the sampled population from the targeted population (Brown and Beck 1994). The aim of sampling is to allow the researcher to make statements about the global population based on the sample data (Brown and Beck 1994). The main advantage of sampling over measuring the entire population is economy (Juran 1980).

There is a difference between the two discussed populations, the sampled population and the targeted population. The sampled population is the population from which the researcher draws the sample (Daniel 1978). The target population is that which

the researcher makes the inference (Ibid.). These two populations may not be the same. It is through the application of appropriate sampling techniques that allow the researcher to be reasonably assured that the populations are representative (Ibid.). Only then can the researcher make use of statistical inference procedures to reach conclusions about the target population (Ibid.).

Simple random sampling allows the researcher to produce a sample most likely to be representative of the population (Spatz 1993). Random sampling is also known as probability sampling, which is based on "a controlled procedure that assures that each population element is given a known nonzero chance of selection" (Cooper and Emory 1995). Random sampling can be further refined by stratification. As discussed earlier, stratification is a statistical term that refers to the separation of data into various groups for the purpose of discovering patterns and achieving greater understanding (Plsek 1994). By employing stratification the researcher can look for differences between employee groups, patient acuity, educational background, or any other area the researcher wishes to stratify.

The central limit theorem says that as the sample size gets larger, the sampling distribution of the mean will approach a normal distribution (Spatz 1993). This theory leads naturally to the question "what sample size is large enough"? As a general rule, statisticians have found that for most population distributions, once the sample size is at least 30, the sampling distribution of the mean will be approximately normal (Ibid.). The central limit theorem is crucial in statistics as it allows the researcher to make inferences about the population mean without having to know the specific shape of the population distribution (Berenson and Levine 1992).

Although statisticians generally agree that a sample size of 30 can replicate a population, formulas that are more precise exist to help researchers select appropriate sample sizes. Floro used the Research Methodology Decision Aid computer program to determine his required survey size (Floro 1994). Based on this program, the required sample size for the current Tripler population is 302. However, a more common formula exists to aid researchers in selecting sample size if certain factors are known (Daniel 1978, Plsek 1994, Cooper and Emory 1995). If one has an estimate of the standard deviation of the mean for population, then the researcher can more accurately estimate the appropriate sample size required given a certain precision level (Cooper and Emory 1995). Methods available to obtain estimates of the mean include conducting a pilot study or previous survey data for the population. The standard deviation of the mean for Floro's study was .658. The precision level for this study will be .1 with a 95 percent confidence level (Z=1.96). The significance level (alpha) is set at .05. The minimal sample size (n) required for this study will be:

n= Standard Deviation^2/(precision level/z-score)^2 or

n= .658^2/(.1/1.96)^2 = 166.33 or 167

When a population studied is finite, a population correction factor may be appropriate in calculating the required sample size (Cooper and Emory 1995). When the sample size goes above a given percent of the actual population, then application of a population correction factor should be considered. Statisticians disagree over precisely when a population correction factor should be applied. Arguments often range from sample sizes greater than five percent (Cooper and Emory 1995) to greater than ten percent (Plsek 1994) of the actual population. Since the sample size estimated for this

study falls between this range, it is prudent to apply the population correction factor. Using the method outlined by Cooper and Emory, the calculated sample size required after considering the population correction factor is 158.

Statistically, a sample size of 158 is sufficiently large enough for the purpose of this study. As this study attempts to replicate Floro's study, we will use the same methodology Floro used to calculate sample size. Considering Floro's methodology, a sample size of 302 will be required. It is noted, however, that this sample size is larger than what more commonly used techniques would require.

The study conducted by Floro used a stratified random sampling technique to measure the employee perceptions at Tripler (Floro 1994). This study replicated his methodology. Specifically, a stratified personnel roster was produced with the stratification based on military verses civilian employees, and by job type. This roster stratified the approximate 2677 employees into the same 14 segments used by Floro in his study.

Floro experienced approximately 65 percent return rate for the survey (Floro 1994). Anticipating this, Floro sent surveys to 18.5 percent of the employees in each of the 14 segments in order to ensure an adequate sample size for to be available for analysis (Ibid.). Replicating this required the selection of 496 survey participant for this study. A computerized random number generator was used to select the required number of participants for this survey from the stratified rosters.

Ethical Concerns

A local union affiliated with the American Federation of Government Employees represents several categories of employees at Tripler. The survey responses will include

both demographic data and employee opinions. Unions often object to management collection of such data fearing management reprisals against employees who voice unpopular opinions. Permission was sought and obtained from the local union for surveying bargaining unit employees.

Survey participant confidentiality is an important consideration whenever survey methods are employed. The survey instructions will stress the confidentiality of responses and that no name is required or desired on the completed survey. To ensure confidentiality, no individual surveys will be presented to management, and only consolidated survey results will be presented.

Statistical Methods

Using SPSS, analysis will be made of the sampled population to include descriptive and inferential statistics. SPSS will also be used to make descriptive and inferential analysis of the differences between the 1996 survey responses to the benchmark survey conducted by Floro.

Descriptive statistical analysis will be used to summarize response rates, demographic characteristics, survey means, standard deviations, and other comparative studies. This will allow the ability to compare the responses of the proposed survey to Floro's survey.

Inferential statistics will be used to look for differences between demographic groups on construct scores. Inferential statistic will also test for differences between the proposed survey responses and the responses reported in Floro's study. Student's t-test will be used to test for differences between group means to include gender, military-vs.-civilian occupational status, position, pay grade and other categories. A one way analysis

of variance, or ANOVA, will be used to test for significant differences in measures of

central tendency, or means, between groups. Post-hoc analysis will include Tukey's

Honestly Significant test, if determined necessary using ANOVA. Cronbach's alpha will

be used to conduct a reliability analysis.

CHAPTER 3

EXPECTED FINDINGS AND UTILITY OF RESULTS

The null hypothesis (H_o) for this project is that no difference exists between means of the groups being tested. A second H_o is established that no difference exists between means of Floro's survey to those found in the proposed survey. The alternate hypothesis (H_{ax}) is that a difference between means will be found that will enable meaningful analysis of the population at Tripler. Specifically, the alternative hypotheses to be tested are:

H_{a1}: Differences exist in variables affecting construct scores. This hypothesis will be used to test whether demographic variables such as position description, sex, and military/civilian status are related to construct mean scores for the tested variables.

H_{a2}: Differences exist in variables related to whether survey was completed in 1994 verses 1996. This hypothesis will be used to test whether a statistically significant difference exists in tested variables between the 1994 population and the 1996 population of Tripler. This hypothesis will also be used to test for differences in variables between demographic groups in the 1994 survey verses the 1996 survey.

The significance level (alpha) is set a .05.

Value of Study

This study will be of direct benefit to the management of Tripler Regional Medical Center. This research hopes to demonstrate a significant difference between the means for the population in the original survey conducted by Floro and this proposed survey. If differences exist, this information can be analyzed to determine the .

effectiveness of TQM implementation as it relates to the impact on organizational culture. This information can be used to target training at specific areas shown deficient, or where lack of progress is evident. This information will also be valuable to the senior leadership at Tripler as they consider organizational strategy and direction.

CHAPTER 4

RESULTS

Return Rate

Of the 496 surveys distributed in this study, 310 surveys were returned. Of the 310 surveys returned, seven were considered unusable for this study due to incomplete responses. This calculates to just over 61 percent response rate or 303 surveys.

Table 1 lists the return rate by occupational category. The highest response rate was "other staff" which includes administrators, chaplains, attorneys, and engineers. The excessively high return rate for this group is most likely due to individuals working in administrative positions but are holding non administrative position classifications on the manning rosters. The second highest responding group was allied health professionals at 82 percent followed by physicians at 74 percent. This was followed by office/clerical staff at 66 percent, registered nurses at 49 percent, and medical technicians at 41 percent. The occupational category with the lowest return rate was the service staff at 30 percent.

Table 1. Sample Demographics and Return Rates

Occupation	Population	Sampled	Returned	1996 Percent Returned	1994 Percent Returned
Physicians	304	57	42	74%	75%
Registered Nurses	421	78	38	49%	61%
Allied Health	212	39	33	85%	69%
Medical Technicians	818	151	62	41%	51%
Office/Clerical Staff	556	103	68	66%	70%
Service Staff	270	50	15	30%	56%
Administrative Staff	96	18	45	250%	91%
Military	1382	256	148	58%	57%
Civilian	1295	240	155	65%	73%
	2677	496	303		

In comparing 1994 to 1996, return rates were identical for the military population at 57 percent. The return rate was nearly identical for physicians, with 1994 to 1996 rates at 75 and 74 percent respectively. In both the 1994 and 1996 surveys, civilian employees returned surveys at a higher rate than military employees did.

Demographic Characteristics

Table 2 provides a complete listing of the demographic composition of survey respondents. The sample was 51 percent civilian and 49 percent military. Of the sampled military population, 51 percent were officers and 49 percent were enlisted. Males comprised 47 percent of the sample where females made up 53 percent. A majority of the sample respondents indicated they were nonsupervisors, at 64 percent, and supervisors made up 36 percent. Over 43 percent of the sample respondents indicated they have worked at Tripler between 1-3 years, nearly double the next highest response of 4-9 years. Approximately 42 percent of the respondents indicated they had between 10-20 years of total federal service, with 4-9 years, at 30 percent, being the second most frequent response.

The demographics of the samples in the two surveys differ in several areas. The overall military population at Tripler dropped by 476 soldiers, from 1858 to 1382. This reduction in military population was the result of two factors. First, several major functional areas within Tripler in 1994 were no longer part of Tripler in 1996. Two of the major activities no longer part of Tripler are Dental and Veterinary services. A second factor contributing to the reduction in military staffing include the ongoing "downsizing" of the military force structure.

Table 2. Demographic Characteristics of Survey Respondents (1996, n=303; 1994, n=352)

		1996 Number of Respondents	1996 Percent of Total	1994 Number of Respondents	1994 Percent of Total
Occupational Group	Physician	42	14%	55	16%
	Registered Nurses	38	13%	49	14%
	Allied Health Professionals	33	11%	40	12%
	Med. Technicians	62	21%	102	29%
	Office/Clerical	68	23%	64	18%
	Service	15	5%	23	7%
	Administrative/Other	45	15%	10	3%
Federal Service Status	Military	148	49%	198	56%
	Civilian	155	51%	154	44%
Military Rank	PVT-SPC	17	12%	39	20%
	SGT-SSG	33	22%	40	20%
	SFC-CSM	23	15%	17	9%
	WO1-CW5	1	1%	0	0%
	2LT-CPT	34	23%	49	25%
	MAJ-LTC	34	23%	45	23%
	COL & above	6	4%	9	5%
	Officer	75	51%	103	52%
	Enlisted	73	49%	96	48%
Civilian Pay Grade	WG 01-WG 02	2	1%	2	1%
	WG 03-WG 07	10	6%	9	6%
	GS 01-GS 05	65	42%	43	30%
	GS 05-GS 09	42	27%	54	38%
	GS 10 & above	36	23%	36	25%
Gender	Male	143	47%	182	53%
	Female	160	53%	161	47%
Supervisory Position	Supervisor	109	36%	112	32%
	Nonsupervisor	194	64%	239	68%
Length of Time at Tripler	0-11 Months	54	18%	59	17%
	1-3 Years	129	43%	159	45%
	4-9 Years	65	22%	72	21%
	10-20 Years	46	15%	38	11%
	20 or More	9	3%	18	5%
Length of Total Federal Service	0-11 Months	16	5%	5	1%
	1-3 Years	36	12%	55	16%
	4-9 Years	90	30%	107	30%
	10-20 Years	126	42%	127	36%
	20 or More	35	12%	47	14%

The shift in population also changed the civilian and military mixture assigned to Tripler. The number of civilian employees assigned to Tripler increased by over 8 percent from 1138 to 1295. After considering the changes in the military and civilian populations, overall the population assigned to Tripler dropped by almost 11 percent from 2996 to 2677 employees.

A clearer and perhaps more meaningful picture of this population change is reveal when you compare the total employees in each of the occupational categories. In four of the seven categories the population decreased, while it increased in three categories. The allied health, medical technician, physician, and nursing staff decreased by 33, 25, 22, and 3 percent respectively. The population of other staff, service staff, and office/clerical staff increased by 66, 22, and 13 percent respectively.

The male to female ratio of survey respondents changed slightly between 1994 and 1996. The ratio of males to females in 1994 was 53 to 47 percent respectively. In 1996, this male to female ratio flip-flopped to 47 to 53 percent respectively. This writer lacked the information required to analyze whether this change was due to a real change in the composition of the workforce or was due to other factors.

The self reported length of time at Tripler and the length of active federal service showed similarities between the 1994 and 1996 surveys. For length of time at Tripler, the mode response for both surveys was between one to three years, comprising 45 and 43 percent of the responses for the 1994 and 1996 surveys respectively. The second most frequent response for both surveys was four to nine years, at 21 and 22 percent for 1994 and 1996 respectively. The third, forth and fifth response choices also matched in both surveys. These responses are consistent with most organizations with military

populations who move roughly every three years, with some variation. The survey indicated the 1996 population had slightly more time working at Tripler. About 40 percent of the 1996 survey respondents reported four or more years at Tripler, compared to 37 percent in the 1994 survey with four or more years of service at Tripler.

Like the length of time at Tripler, the self reported length of federal service responses in the 1996 survey mirrored the responses found in the 1994 survey. The mode response for the 1996 and 1994 survey was between ten to twenty years of total federal service, with the frequency in the 1996 and 1994 surveys at 42 and 36 percent, respectively. The second most frequent response for length of total federal service in the 1996 and 1994 surveys were between four to nine years, with the frequencies at 30 percent in both surveys. Both surveys indicated that greater than 80 percent of the Tripler population had generally worked in the federal service for four or more years. Approximately one percent of the 1994 population had less than one year of total federal service, with approximately five percent of the 1996 survey participants having less than one year of federal service.

The mean age within the sample of the 1996 survey was 38 years with 69 percent between 29 and 48 years of age. For the 1994 survey, the mean age was 37 years, with 69 percent of the population falling between 30 and 49 years of age. The range of ages for the 1996 survey was from 20 to 68 years of age. The mode for the 1996 survey was 33 years of age. Insufficient data in this area from the 1994 survey prohibits a more detailed analysis in this area.

Descriptive Statistics

Using SPSS, mean scores and standard deviation were determined for the survey. Table 3 provides a synopsis of this data. The survey used a five-point scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree). Twenty-five of the 56 survey questions were worded as negative questions, where a low score is viewed as a more positive assessment of climate. In order to aid the reader in interpretation and to mirror the 1994 survey, the ratings for these 25 questions were recoded to reflect a score of "5" as being the most positive response.

Mean scores ranged from 2.34 to 3.92. The range of the mean scores for the 1994 survey was from 2.34 to 3.88. The survey mean for the 56 questions was 3.15. Thirty-five of the 56 means scored above 3.0, with 21 scoring below 3.0. In the 1994 survey, only 30 of the 56 means score above 3.0. The highest scoring item was "*TQM is important to me*" with a mean of 3.92. The lowest scoring item was "Not enough reward and recognition for good work" at 2.34. This item was also the lowest scoring question in the 1994 survey. The standard deviation for the 1996 survey ranged from .79 to 1.31. The mean standard deviation for the survey was 1.09. The range of standard deviation in the 1994 survey was from .85 to 1.30. Floro reported a mean standard deviation of approximately 1.0.

Ten of the 56 questions on the 1996 survey score above 3.50. This compares to seven of the ten questions scoring above 3.50 in the 1994 survey. The ten questions scoring above 3.50 in the 1996 survey are, *TQM is important to me* (3.92), *High performance standards at TAMC* (3.79), *I know a lot about TQM* (3.78), *I understand my*

Table 3. Mean and Standard Deviation for 1996 and 1994 Survey

	1996 Mean	1996 Std. Dev.	1994 Mean	1994 Std. Dev.
STRUCTURE:				
1. Jobs are clearly defined and logically structured	3.45	1.01	3.41	1.08
* 2. It is unclear who has formal authority	3.14	1.31	3.12	1.30
3. Policies and organizational structure clearly explained	3.53	1.08	3.53	1.08
4. Red tape is kept to a minimum	2.74	1.07	2.71	1.12
* 5. Excessive rules make it difficult for new ideas to receive consideration	2.84	1.16	2.78	1.08
* 6. Productivity suffers from lack of organization and planning	2.55	1.16	2.78	1.19
* 7. Unsure who your boss is sometimes during projects	3.47	1.21	3.48	1.20
8. Abilities outweigh authority in selecting best people for project	2.98	1.09	2.86	1.06
RESPONSIBILITY:				
* 9. Individual judgement is not relied upon	3.02	1.10	3.01	1.09
10. If you have the right approach, just go ahead	2.58	0.93	2.55	0.97
11. Supervisors set guidelines and allow subordinates to take responsibility	3.13	1.07	3.16	1.04
* 12. To get ahead at TAMC you must stick your neck out	3.10	1.07	3.15	1.03
* 13. People should solve problems by themselves	3.31	1.03	3.39	0.99
* 14. Lots of excuses when mistakes are made	2.81	1.14	2.90	1.14
* 15. Too many people are unwilling to take responsibility	2.81	1.23	2.88	1.20
REWARD:				
16. The best rise to the top in our promotion system	2.44	1.17	2.43	1.13
17. Rewards outweigh threats and criticisms	2.86	1.16	2.74	1.13
18. Rewards and promotion is linked to excellence in job performance	2.68	1.16	2.65	1.19
* 19. Not enough reward and recognition for good work	2.34	1.23	2.34	1.17
* 20. Lots of criticism at TAMC	2.81	1.13	2.82	1.15
* 21. Make a mistake and you will be punished	3.22	0.99	3.21	1.02
RISK:				
* 22. We get ahead by playing it slow, safe, sure	3.11	2.55	2.80	0.89
23 We take calculated risks at the right time	3.06	0.79	2.95	0.90
* 24. Decision making is too cautious	3.05	0.91	2.93	0.93
25. Management will take a chance on a good idea	3.39	0.93	3.22	0.99
WARMTH:				
26. A friendly atmosphere prevails at TAMC	3.64	1.06	3.63	1.07
27. Relaxed, easy going climate at TAMC	3.23	1.15	3.12	1.14
* 28. It is hard to get to know people at TAMC	3.53	1.05	3.44	1.03
* 29. At TAMC people are cool and aloof	3.37	1.01	3.38	1.03
30. Warm relationship exist between management and workers at TAMC	3.18	1.14	3.2	1.02

Table 3. (Continued) Mean and Standard Deviation for 1996 and 1994 Survey

	1996 Mean	1996 Std. Dev.	1994 Mean	1994 Std. Dev.
SUPPORT:				
* 31. Not much sympathy if you make a mistake	3.03	0.98	2.98	0.99
32. Management talks with you about career aspirations	2.92	1.18	2.84	1.17
* 33. People don't trust each other at TAMC	3.08	1.12	3.08	1.02
34. Management philosophy values how employee's feel	2.95	1.03	2.92	1.04
35. Employee's can count on management support in difficult assignments	3.58	1.04	3.55	1.06
STANDARDS:				
36. High performance standards are set at TAMC	3.79	0.94	3.68	0.97
37. Management believes that no job is so well done that it couldn't be done better	3.49	0.99	3.31	0.95
38. Pressure exists to continually improve personal and group performance	3.44	1.02	3.29	1.02
39. Management believes that if people are happy, productivity will take care of itself	2.92	1.10	2.98	1.04
* 40. To get ahead it is more important to get along than to be a high producer	2.84	1.06	2.74	1.05
* 41. At TAMC people don't take pride in their performance	3.38	1.14	3.33	1.11
CONFLICT:				
* 42. The best way to make a good impression is to avoid arguments and disagreements	2.63	1.10	2.56	1.08
43. Management feels conflict between competing departments can be healthy	2.73	0.83	2.69	0.85
44. Employees are encouraged to speak their minds even if disagreeing	2.87	1.13	2.86	1.10
* 45. At meetings the goal is to make decisions smoothly and quickly	2.81	0.96	2.89	0.96
INDENTIFY:				
46. People are proud to belong to TAMC	3.48	0.99	3.42	0.95
47. I am a member of a well functioning team	3.42	1.11	3.49	1.05
* 48. People are not loyal to TAMC	3.34	1.07	3.25	1.04
* 49. People at TAMC just look out for themselves	2.79	1.17	2.76	1.14
TQM:				
50. Leadership is actively involved in promoting TQM	3.52	0.91	3.31	0.98
51. Senior management action shows strong commitment to TQM	3.42	1.02	3.28	1.02
52. My supervisor is strongly committed to TQM	3.53	1.05	3.34	1.09
53. TQM is important to me	3.92	0.95	3.88	0.91
54. I understand my role in contributing to TQM goals	3.77	0.95	3.72	0.99
55. I understand how TQM is being implemented at TAMC	3.36	1.02	3.15	1.07
* 56. I don't know much about TQM	3.78	1.15	3.72	1.13
AVERAGE MEAN SCORE:	3.15		3.10	

(a) All scores have been recoded to reflect "5" as being the most positive rating. The recoded questions are indicated with *.

(b) Variable rated on a 5-point scale: 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree.

(c) Survey questions are in abbreviated form on this table.

role in TQM (3.77), *A friendly atmosphere exists at TAMC* (3.64), *Employee's can count on management support* (3.54), *Policies are clearly explained* (3.53), *Ease of getting to know people at TAMC* (3.53), *My supervisor is strongly committed to TQM* (3.53), and *Leadership is actively involved in promoting TQM* (3.52). All of the seven questions scoring above 3.50 on the 1994 survey also scored above 3.50 on the 1996 survey. The three question scoring above 3.50 on the 1996 survey but not on the 1994 survey are *Leadership is actively involved in promoting TQM, My supervisor is strongly committed to TQM*, and *Ease of getting to know people at TAMC*.

In the 1994 and 1996 survey, two questions scored below 2.50. In both the 1994 and in the 1996 survey, the same two questions scoring below 2.50. These two questions were *Not enough reward and recognition* (2.34) and *The best rise to the top in our promotion system* (2.44).

The construct variable mean scores are reflected in table 4. The *TQM* construct

Table 4. Construct Variable Means Comparison

Construct Variable (a)	1996 Mean	1996 Std Deviation	1994 Mean	1994 Std Deviation
TQM (7)	3.62	0.66	3.49	0.62
Warmth (5)	3.39	0.82	3.35	0.77
Standards (5)	3.31	0.59	3.22	0.56
Identify (4)	3.26	0.90	3.23	0.86
Risk (4)	3.15	0.78	2.97	0.57
Support(5)	3.11	0.81	3.15	0.75
Structure (8)	3.09	0.70	3.08	0.65
Responsibility (7)	2.96	0.54	3.01	0.49
Conflict (4)	2.76	0.54	2.75	0.54
Reward (6)	2.73	0.78	2.70	0.77

(a) The number of survey questions within the construct

(b) Uses 5-point Likert scale: 1=strongly disagree, 5=strongly agree

was the only construct of the ten scoring above 3.50, at 3.62. No construct scored below 2.50. The constructs *Warmth* (3.39), *Standards* (3.31), *Identity* (3.26), *Risk* (3.15), *Support* (3.11), and *Structure* (3.09) scored above 3.0. Scoring below 3.0 on the 1996 survey were *Responsibility* (2.96), *Conflict* (2.76), and *Reward* (2.72). In both the 1994 and the 1996 survey, seven of ten constructs scored above 3.0. However, during the 1994 survey, *Responsibility* scored above 3.0 and *Risk* scored below 3.0, a reverse of what was found in the 1996 survey. The standard deviation for the 1996 survey ranged from .54 to .90, and from .49 to .86 on the 1994 survey.

Using Cronbach's Alpha, a reliability analysis was conducted to test the internal consistency of the constructs. The results of this analysis are found in table 5. The

Table 5. Alpha Coefficient (a)

Construct Variable (a)	1996 alpha Coefficient	1994 alpha Coefficient
Identify	0.85	0.84
Warmth	0.81	0.77
Support	0.81	0.74
Reward	0.77	0.77
TQM	0.77	0.75
Structure	0.76	0.71
Standards	0.57	0.53
Responsibility	0.50	0.36
Risk	0.43	0.51
Conflict	0.16	0.19

(a) Using Cronbach's alpha coefficient

(b) Scores above .70 are considered highly reliable
   Scores between .50 and .69 are considered acceptable
   Scores below .50 have doubtful reliability

results of the 1996 survey closely match the results of the 1994 survey. In both the 1994 and 1996 surveys, the constructs *Structure, Warmth, Support, TQM, Reward,* and *Identify*

scored above .70, which is generally considered highly reliable. On both surveys, the *Conflict* construct showed poor internal consistency.

Inferential Statistics

Using SPSS, a one-way analysis of variance (ANOVA) was conducted for the ten construct variables. This test revealed a difference in the population ($p \leq .05$) using demographic variables. The demographic variables revealing a significant difference in the population include occupation, and whether an individual was an officer, enlisted or civilian employee, among others.

The one-way ANOVA showed a significant difference in seven of the ten construct scores when using occupation as the demographic variable. The $\underline{F}$ values for the constructs showing a statistical significance are *Warmth* $\underline{F}$ (6, 296) = 3.94, p= .001; *Support* $\underline{F}$ (6, 296) = 3.88, p= .001; *Standard* $\underline{F}$ (6, 296) = 3.05, p= .007; *Structure* $\underline{F}$ (6, 296) = 2.97, p= .008; *Identity* $\underline{F}$ (6, 296) = 2.44, p= .025; *Responsibility* $\underline{F}$ (6, 296) = 2.21, p= .042; and *Reward* $\underline{F}$ (6, 296) = 2.14, p = .049. This compares to only two of the ten constructs showing a significant difference in the 1994 survey. The two significant constructs in the 1994 survey were *Risk* $\underline{F}$ (6, 336) = 2.43, p= .026, and *Warmth* $\underline{F}$ (6, 336) = 3.67, p = .002.

As in the 1994 survey, Tukey's Honestly Significant Difference (HSD) test was used for post-hoc analysis. Tukey's HSD was used to make multiple comparisons for the constructs identified as being significant in the one-way ANOVA. Table 6 shows the results of this analysis. The demographic variables of physicians and service workers proved to demonstrate the most differences within the occupational grouping.

Table 6. Differences Among Occupational Categories.

Occupational Category	Number of Differences for Listed Construct(a)							
	Warmth	Support	Structure	Standards	Reward	Responsibility	Identify	Total Differences
Physicians	3	2	1	1	1	0	0	8
Registered Nurses	0	0	0	0	0	0	0	0
Allied Health Professionals	0	0	1	0	0	0	0	1
Medical Technicians	1	0	1	0	0	0	0	2
Office/Clerical	1	1	0	0	0	0	0	2
Service Workers	1	2	4	2	1	0	0	10
Other	0	1	1	1	0	0	0	3

(a) Using Tukey's Honestly Significant Difference test

A one-way analysis was conducted on each of the constructs testing for difference in the population using the demographic variable of whether an individual was an officer, enlisted or civilian employee. Significant differences were found in six of the ten constructs. The $\underline{F}$ values for the six constructs are as follows: *Warmth* $\underline{F}$ $(2, 300) = 10.19$, $p = .000$; *Support* $\underline{F}$ $(2, 300) = 7.94$, $p = .000$; *Identify* $\underline{F}$ $(2, 300) = 7.12$, $p = .001$; *Standard* $\underline{F}$ $(2, 300) = 4.38$, $p = .013$; *Reward* $\underline{F}$ $(2, 300) = 3.48$, $p = .032$; and *Structure* $\underline{F}$ $(2, 300) = 3.38$, $p = .035$.

On the post-hoc analysis using Tukey's HSD, differences were found as listed in table 7. Differences were found in six of the constructs. Officer and enlisted demographic variables exhibited significant differences in each of the six tested constructs. The civilian demographic variable was found significant in only three of the six variables.

No significant difference in construct scores was found using one-way ANOVA in differences for gender, or supervisory status. This differs from Floro's study, which found significant differences using these demographic variables. Floro found significant

Table 7. Differences Among Service Status.

Service Status	Number of Differences for Listed Construct(a)						
	Warmth	Support	Structure	Standards	Reward	Identify	Total Differences
Enlisted	1	1	1	1	1	1	6
Officer	2	2	1	2	1	1	9
Civilian	1	1	0	1	0	0	3

(a) Using Tukey's Honestly Significant Difference test

differences in constructs *Structure, Warmth* and *Identify* using gender. Floro also found a significant difference in means in the *Conflict* construct using supervisory status.

In both the 1996 and the 1994 study, no significant difference was found in construct scores with the demographic variables length of active federal service or length of time at Tripler.

In the 1996 survey, age was found to show a statistically significant difference in one of the ten construct scores. Using one-way ANOVA, *Support* was significant at $\underline{F}$ $(1, 301) = 4.91, p = .027$.

In addition to testing for differences in construct score means, test for differences in mean scores for each of the 56 survey questions was also conducted. Using one-way ANOVA, analysis of difference in means of the 56 questions using demographic variables of occupation and for enlisted, officer, or civilian status was conducted.

Appendix 2 lists results of the one-way ANOVA testing for differences in mean scores for the 56 questions using the demographic variable occupation. The one-way ANOVA test found statistically significant differences in 17 of the 56 questions.

Appendix 3 lists results of the one-way ANOVA testing for differences in mean scores for the 56 questions using the demographic variable of officer, enlisted, or civilian status. The one-way ANOVA test found statistically significant differences in 25 of the 56 questions.

CHAPTER 5

DISCUSSION

As stated before, the cultural assessment survey is an attempt to measure the attitudes, perceptions and beliefs of the staff as it pertains to working at Tripler. As such, this survey is a measure of satisfaction of the work and social environment at Tripler. If a difference in satisfaction can be found based on demographic variables, then actions can be taken to discover the nature behind these differences. One can look for what is being done right in groups with high satisfaction in order to apply those tools to bring up the satisfaction in other groups. By discovering demographic groups with low satisfaction, the researcher can look at factors influencing their low satisfaction. Then, action that is more appropriate can be taken to improve satisfaction in those groups.

Inferential statistics showed that certain demographic variables within the population had statistically significant differences. This knowledge allows the researcher to use this information to their advantage when trying to make sense out of the volumes of information made available from research. Knowledge of which specific variables in the population have predictive value allows the researcher to focus their efforts to make their study of value to management.

Inferential statistics applied to the cultural assessment survey showed predictive value in numerous demographic variables. However, two demographic variables were found most predictive of the attitudes, perceptions and beliefs of the staff at Tripler. These demographic variables were occupational status and service status. Service status is whether one was an officer, enlisted, or civilian employee.

Occupational Status and Satisfaction

Mean construct scores were graphed for each of the six occupational categories

for comparison. Comparisons in mean construct scores were also made between

occupational categories to assess change in the population between the 1994 and the 1996

survey. Appendix 4 provides an in-depth review of these graphs.

Inferential statistic showed that physicians and service workers as having the most

significant difference within the occupational grouping. The difference in mean construct

scores between the 1994 and 1996 survey for physicians are shown in Appendix 4, chart

1. Only the seven constructs testing as highly reliable using Cronbach's alpha are used

for this comparison. The chart shows an increase in mean response scores between 1994

and 1996 in each of the seven constructs. The physician subcategory of the occupational

demographic variable showed the largest increase in satisfaction of the seven

occupations.

Service workers showed the most significant decline in mean construct scores

between 1994 and 1996. Chart 2 in Appendix 4 shows service worker responses. Only

the seven construct scores testing as reliable using Cronbach's alpha are used. The chart

shows that mean construct scores dropped between 1994 and 1996 in each of the seven

constructs. Service workers also showed the greatest average decrease in mean construct

scores of the seven occupations in the occupational demographic variable.

Service Status and Satisfaction

Differences were compared using graphs for enlisted, officer and civilian

demographic variables. Unfortunately, a lack of the information required from the 1994

survey makes it impossible to make comparisons between 1994 and 1996. However, a

comparison of differences using the variables in the 1996 survey provides useful insights into the attitudes and perceptions of the current population of Tripler. Included in Appendix 4 are selected charts comparing the enlisted, officer and civilian employees within the Department of Nursing. This study showed that the attitude and perceptions of the enlisted population lagged behind the attitude and perceptions of the officer and civilian workforce.

An Analysis of Associated Causes in Differences in the Population

As stated earlier, results showed significant differences exist in the population working at Tripler. Officers, and physicians in particular, showed the highest satisfaction. Physicians showed the most improvement in satisfaction from the 1994 survey. Several factors can be identified which may help explain these differences.

Tripler has been involved in extensive TQM training over the last two years. The primary recipients of this training have been the officer personnel. The physician population has been extensively trained in TQM during this time. Only recently has this training been made extensively available to the general population at Tripler.

Another factor that potentially influenced the improvement in satisfaction in officers and physicians was the change in several key leaders at Tripler. The assignment of a new commanding general (CG) at Tripler approximately eight months before this survey may have influenced satisfaction. The new CG's leadership philosophy differs greatly from the previous CG. The current philosophy places great emphasis on values associated with TQM.

<u>Reward Construct</u>

In both the 1994 and the 1996 survey, the reward construct scored the lowest in overall satisfaction. The reward construct scored 2.70 in 1994 and 2.73 in 1996, using a 5-point Likert scale measurement. No positive response from any demographic group was found in any of the questions in the reward construct.

All demographic groups disagreed with the statement (question 16) that "our promotion system allows the best employees to get promoted. No demographic group associated excellent performance with individual recognition (question 18). All demographic groups tended to agree with the statement that not enough reward and recognition is given at Tripler for doing good work (question 19). Being a service worker, enlisted, or an office or clerical worker predicts a lower score on construct and question means.

CHAPTER 6

RECOMMENDATIONS AND CONCLUSION

Many of the recommendations cited below have already been accomplished at

Tripler. These changes were enacted following the presentation of these findings to the

Process Improvement Committee (PIC) and to the human resource management

functional management team. The Department of Nursing has also taken great interest in

using these findings to develop internal actions to improve satisfaction.

Recommendations to the PIC

In a formal presentation to the PIC at Tripler, this researcher made several specific

recommendations regarding these findings. The following outlines these

recommendations.

The human resource management functional management team should study the

formal and informal reward systems at Tripler. This study should include the use of

focus groups comprised of a cross section of employees at Tripler to probe problems in

the formal and informal reward systems. Special efforts should be made to include those

demographic groups identified as being particularly low scoring in this construct. This

focus group should include a trained facilitator to assist in this study. Tripler has several

facilitators professionally trained at the Juran Institute of Training in Chicago. The focus

group should help to identify specific problems and formulate solutions to be

implemented at Tripler. The human resource management team should be given a

specific timeframe for studying and implementing solutions to this issue.

The Quality Services Division, who is responsible for the training and education of the staff, should expand its TQM training program to include all employees at Tripler. Departments and sections should be encouraged and held accountable for developing all employees within their section.

This study found strong positive attitudes and perceptions relating to *TQM* (3.6 on a five-point scale) and *Warmth* (3.4 on a five-point scale). All demographic groups expressed satisfaction in *TQM*. Warmth relates to the attitude and feeling that Tripler is a good place to work and that employees like their fellow workers. This writer recommended that improvement efforts should attempt to capitalize on these strong areas. By allowing employees to become involved in improvement efforts using TQM methods, Tripler is afforded the greatest opportunity to for success.

This writer also recommended to the PIC that the managers and employees be made aware that demographic differences exist in employee satisfaction. It is of particular importance that the leadership and managers at Tripler be made aware of these differences. Most of the leadership at Tripler falls in the highest scoring demographic group in this survey. These leaders may not be aware that other demographic groups feel differently than the demographic group they most closely relate to. To aid in this education effort, this writer has made numerous command and department level presentations and is developing a storyboard on this project to be place in the dinning facility.

The final recommendation to the PIC was that this study be repeated in 6-12 months. This researcher also recommended that a program be initiated to systematically assess the satisfaction of the employees at Tripler.

Many of these recommendations have already been widely implemented at Tripler. The Quality Services Division has developed and currently teaches over seven TQM related courses. These courses have been made available to all employees at Tripler. The Quality Services Division is actively marketing these courses, to include an intranet homepage, the use of electronic mail advertisements, professionally produced brochures, and the use of command emphasis.

The Department of Surgery has recently brought in outside consultants to assist in conducting focus groups, front line training programs, and has reworked it's reward program. The Department of Nursing has taken great interest in presenting the findings of this study to their employees. Three formal presentations of these findings have been made to Department of Nursing staff. The leadership in the Department of Nursing is using the knowledge of these findings to help focus their internal efforts for improvement.

The Survey Instrument

The modified Litwin-Stringer survey proved again to have generally good internal reliability when measured using Cronbach's alpha. The *Conflict* construct, however, has shown poor reliability in both the 1994 and 1996 surveys (alpha at .19 and .16, respectively). Researchers wishing to use this survey may wish to modify this construct. Two other constructs, *Risk* and *Responsibility* have tended to show marginal internal reliability at Tripler.

This survey consists of 56 questions, which could prove logistically difficult for anything other than academic research. If a systematic assessment of satisfaction were to

be enacted, another survey instrument should be considered, or further modifications should be made to the Litwin-Stringer survey to make the instrument more user friendly.

Conclusions

Tripler has the opportunity to make significant improvements in the satisfaction of its employees. Abundant employee training opportunities exist, coupled with a strong commitment from the senior leadership at Tripler to make a change for the better.

There is a correlation between the quality training efforts and increased staff satisfaction. With the planned expansion of these efforts to include all employees at Tripler, this organization has the opportunity to enable a more positive work environment for all employees.

The Total Quality philosophy and efforts at Tripler has already begun to make a difference in many areas. Quality was a critical factor for success in the recent Joint Commission Accreditation inspection, where Tripler scored 99 out of a possible 100, the highest score ever achieved by a Department of Defense hospital at the time. The Tripler quality program was singled out in the Joint Commission's book, Doing the Right Things Right, published in 1997. Tripler was named as one of the seven hospitals worthy of emulating. This book uses Tripler as a case study exploring a health organization "that is doing things right."

If the effort to reach and train all employees at Tripler succeed, Tripler should see a rise in employee satisfaction comparable to the level of increase found in the officer and physician employee groups. Tripler is an organization doing the right things right. Further research into changes in satisfaction promise to be interesting and fruitful.

Tripler Army Medical Center

The Premier Health Care System in the Pacific Basin

Staff Cultural Assessment Survey

1996
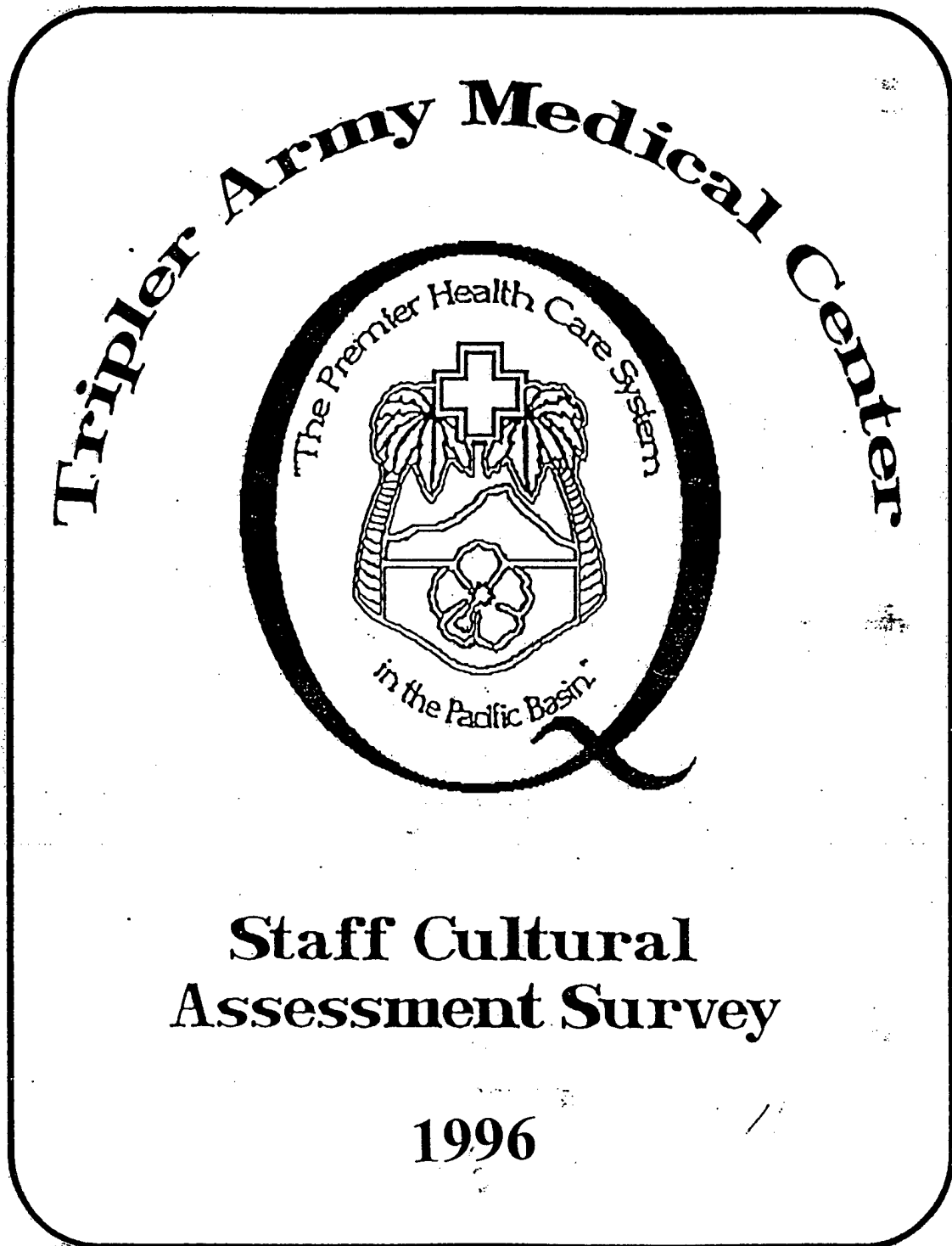
Instructions

The statements in this survey ask you how you feel about the work conditions in your organization; that is, your overall impression of how things are in your organization. Indicate your answer by circling the <u>ONE</u> number which best represents how you feel about the particular statement. Please answer all questions.

THERE ARE NO RIGHT OR WRONG ANSWERS -- THE ONLY REAL ANSWER IS YOUR HONEST OPINION.

Use the following <u>definitions</u> when answering the questions in the survey:

<u>Organization</u> - the highest level of Tripler for which you feel you have accurate information; typically one or two levels above your own.

<u>Management</u> - refers to those individuals that provide supervision and/or leadership to you.

<u>Supervisor</u> - refers to your immediate supervisor. If you work in more than one department/unit, refer to the supervisor for the area where you work the most.

Do not write your name on this survey.

> Your individual response will be kept completely confidential. Your responses will be combined with responses gathered from throughout the hospital. Only summary reports will be presented to the leadership of Tripler.

When you have completed the survey, place it in the envelope provided, and return the sealed envelope through the distribution system.

Thank You for Sharing Your Opinions

1

TRIPLER ARMY MEDICAL CENTER
CULTURAL ASSESSMENT SURVEY

DIRECTIONS: After reading each statement use the following response scale and circle the __ONE__ number that accurately describes the degree to which the following statements reflect your personal feeling about Tripler.

1=Strongly Disagree; 2=Disagree; 3=Neither agree or disagree; 4=Agree; 5=Strongly Agree.

Structure:

1. The jobs in this organization are clearly defined and logically structured.   1-----2-----3-----4-----5

2. In this organization it is sometimes unclear who has the formal authority.   1-----2-----3-----4-----5

3. The policies and organizational structure of your organization have been clearly explained.   1-----2-----3-----4-----5

4. Red-tape is kept to a minimum in this organization.   1-----2-----3-----4-----5

5. Excessive rules, administrative details, and red-tape make it difficult for new and original ideas to receive consideration.   1-----2-----3-----4-----5

6. Our productivity sometimes suffers from lack of organization and planning.   1-----2-----3-----4-----5

7. In some of the projects I've participated in, I haven't been sure exactly who my boss was.   1-----2-----3-----4-----5

8. Our management isn't so concerned about formal organization and authority, but concentrates instead on getting the right people together to do the job.   1-----2-----3-----4-----5

2

1=Strongly Disagree; 2=Disagree; 3=Neither agree or disagree; 4=Agree; 5=Strongly Agree.

Responsibility:

9. We don't rely too heavily on individual judgement in this organization; almost everything is double-checked.

1-----2-----3-----4-----5

10. Around here management resents your checking everything with them; if you think you've got the right approach you just go ahead.

1-----2-----3-----4-----5

11. Supervision in this organization is mainly a matter of setting guidelines for your subordinates; you let them take responsibility.

1-----2-----3-----4-----5

12. You won't get ahead in this organization unless you stick your neck out and try things on your own sometimes.

1-----2-----3-----4-----5

13. Our philosophy emphasizes that people should solve their problems by themselves.

1-----2-----3-----4-----5

14. There are lots of excuses when someone makes a mistake.

1-----2-----3-----4-----5

15. One of the problems in this organization is that individuals won't take responsibility.

1-----2-----3-----4-----5

Reward:

16. We have a promotion system that helps the best individual to rise to the top.

1-----2-----3-----4-----5

17. In this organization the rewards and encouragements you get usually outweigh the threats and criticism.

1-----2-----3-----4-----5

18. In this organization people are rewarded in proportion to the excellence of their job performance.

1-----2-----3-----4-----5

3

19. There is not enough reward and recognition given   1-----2-----3-----4-----5
to this organization for doing good work.

20. There is lots of criticism in this organization.   1-----2-----3-----4-----5

21. If you make a mistake in this organization, you   1-----2-----3-----4-----5
will be punished.

Risk:
22. The philosophy of our management is that in the   1-----2-----3-----4-----5
long run we get ahead fastest by playing it slow, safe,
and sure.

23. Our organization has been built up by taking   1-----2-----3-----4-----5
calculated risks at the right time.

24. Decision making in this organization is too   1-----2-----3-----4-----5
cautious for maximum effectiveness.

25. Our management is willing to take a chance on a   1-----2-----3-----4-----5
good idea.

Warmth:
26. A friendly atmosphere prevails among the people   1-----2-----3-----4-----5
in this organization.

27. This organization is characterized by a relaxed,   1-----2-----3-----4-----5
easy-going working climate.

28. It's very hard to get to know people in this   1-----2-----3-----4-----5
organization.

29. People in this organization tend to be cool and   1-----2-----3-----4-----5
aloof towards each other.

4

1=Strongly Disagree; 2=Disagree; 3=Neither agree or disagree; 4=Agree; 5=Strongly Agree.

30. There is warmth in the relationship between management and workers in this organization.　　1-----2-----3-----4-----5

Support:
31. You don't receive much sympathy from higher management in this organization if you make a mistake.　　1-----2-----3-----4-----5

32. Management makes an effort to talk with you about your career aspirations.　　1-----2-----3-----4-----5

33. People in this organization don't really trust each other.　　1-----2-----3-----4-----5

34. The philosophy of our management emphasizes the human factor; how people feel, etc.　　1-----2-----3-----4-----5

35. When I am on a difficult assignment, I can usually count on getting assistance from my supervisor and co-workers.　　1-----2-----3-----4-----5

Standards:
36. In this organization, we set very high standards for performance.　　1-----2-----3-----4-----5

37. Our management believes that no job is so well done that it couldn't be done better.　　1-----2-----3-----4-----5

38. Around here there is a feeling of pressure to continually improve our personal and group performance.　　1-----2-----3-----4-----5

39. Management believes that if the people are happy, productivity will take care of itself.　　1-----2-----3-----4-----5

5

1=Strongly Disagree; 2=Disagree; 3=Neither agree or disagree; 4=Agree; 5=Strongly Agree.

40. To get ahead in this organization, it's more important to get along than it is to be a high producer.

1-----2-----3-----4-----5

41. In this organization, people don't seem to take pride in their performance.

1-----2-----3-----4-----5

Conflict:

42. The best way to make a good impression around here is to avoid arguments and disagreements.

1-----2-----3-----4-----5

43. The attitude of our management is that conflict between competing departments and individuals can be healthy.

1-----2-----3-----4-----5

44. We are encouraged to speak our minds, even if it means disagreeing with our superiors.

1-----2-----3-----4-----5

45. In management meetings, the goal is to arrive at a decision as smoothly and quickly as possible.

1-----2-----3-----4-----5

Identify:

46. People are proud of belonging to this organization.

1-----2-----3-----4-----5

47. I feel that I am a member of a well functioning team.

1-----2-----3-----4-----5

48. As far as I can see, there is not much personal loyalty to the organization.

1-----2-----3-----4-----5

49. In this organization people primarily look out for their own interests.

1-----2-----3-----4-----5

6

Total Quality Management (TQM):

50. The overall leadership of Tripler is actively involved in promoting TQM throughout your facility.

1-----2-----3-----4-----5

51. The actions and behaviors of senior management suggest a genuinely strong commitment to TQM.

1-----2-----3-----4-----5

52. The actions and behaviors of your immediate supervisor suggest a genuinely strong commitment to TQM.

1-----2-----3-----4-----5

53. TQM is important to you.

1-----2-----3-----4-----5

54. You understand your role in contributing to the TQM goals of your organization.

1-----2-----3-----4-----5

55. You understand how TQM is being implemented at Tripler.

1-----2-----3-----4-----5

56. You do not know what TQM is about.

1-----2-----3-----4-----5

7

57. OPTIONAL QUESTIONS:

The following questions are optional, but we would appreciate any additional information you would like to provide. We are interested in what you think.

a. What two things do you like the most about your organization?

b. What two things would you like to see improved in your organization?

c. Any additional comments you would like to make?

8

58. Please indicate your present position classification by checking the most appropriate box:

- ☐ **Physician:** Staff or house staff
- ☐ **Nurse:** (RN, Clinical Specialist, Nurse Practitioner, Nurse Educator, etc.)
- ☐ **Allied Health Professional:** (Pharmacist, Dietitian, PT, OT, Social Worker, Medical Technologist, Optometrist, etc.)
- ☐ **Technical:** (EEG Tech, Pharmacy Tech, PT/OT Assistant, LPN, OB/OR Tech, Respiratory / Pulmonary Tech, Radiology Tech, Nursing Assistant, Phlebotomist,etc.)
- ☐ **Office Support/Clerical:** (Medical Records, Secretary, Admitting, Computer Operator, Communications, Finance & Accounting, Personnel, Receptionist, Transcriptionist, etc.)
- ☐ **Service:** (Food Service, Environmental Services, Supply / Warehouse Worker, Craftman, etc.)
- ☐ **Other** _____.

59. Rank or Pay Grade:
- ☐ PVT - SPC
- ☐ SGT - SSG
- ☐ SFC - CSM
- ☐ WO - CWO
- ☐ 2LT - CPT
- ☐ MAJ - LTC
- ☐ COL and above
- ☐ WG 01 - 02
- ☐ WG 03 - 07
- ☐ GS 1 - 5
- ☐ GS 6 - 9
- ☐ GS/M 10 & above

62. Age: _____.

63. Length of time at Tripler:
- ☐ 0 -11 months
- ☐ 1 - 3 yrs
- ☐ 4 - 9 yrs
- ☐ 10 - 20 yrs
- ☐ more than 20 yrs

60. Is your position designated as a supervisor, manager, or executive?   Yes or No (circle one)

61. Gender: M or F (circle one)

9

63. Total federal and/or military service:
   ☐ 0 -11 months
   ☐ 1 - 3 yrs
   ☐ 4 - 9 yrs
   ☐ 10 - 20 yrs
   ☐ more than 20yrs

When you have completed the survey, place it in the small, pre-addressed envelope provided, and return it through the distribution system.

Thank You for Sharing Your Opinions

10

APPENDIX 2

ONE-WAY ANOVA RESULTS FOR OCCUPATION

		N	MEAN	Std. Dev	SIG
1. Jobs are clearly defined and logically structured	physician	42	3.88	0.74	**0.003**
	nurse	38	3.16	0.92	
	allied health	33	3.70	1.02	
	technical	62	3.42	0.98	
	office/clerical support	68	3.21	1.02	
	service workers	15	3.13	1.25	
	Administartive	45	3.61	1.06	
	Total	303	3.45	1.01	
2. Is it unclear who has formal authority	physician	42	2.60	1.25	**0.006**
	nurse	38	2.97	1.28	
	allied health	33	2.76	1.25	
	technical	62	2.87	1.30	
	office/clerical support	68	2.88	1.24	
	service workers	15	4.13	1.25	
	Administartive	45	2.62	1.42	
	Total	303	2.86	1.31	
3. Policies and organizational structure are clearly explained	physician	42	3.81	0.83	0.258
	nurse	38	3.37	1.02	
	allied health	33	3.79	1.11	
	technical	62	3.53	1.11	
	office/clerical support	68	3.38	1.02	
	service workers	15	3.27	1.22	
	Administartive	45	3.51	1.25	
	Total	303	3.53	1.08	
4. Red tape is kept to a minimum	physician	42	2.54	1.18	0.178
	nurse	38	2.42	1.03	
	allied health	33	2.85	1.00	
	technical	62	2.95	0.95	
	office/clerical support	68	2.82	1.11	
	service workers	15	2.93	0.96	
	Administartive	45	2.64	1.15	
	Total	303	2.74	1.07	
5. Excessive rules make it difficult for new ideas to receive consideration	physician	42	3.02	1.18	0.051
	nurse	38	3.08	1.10	
	allied health	33	2.94	1.06	
	technical	62	3.34	1.07	
	office/clerical support	68	3.15	1.14	
	service workers	15	4.00	1.20	
	Administartive	45	2.98	1.31	
	Total	303	3.16	1.16	
6. Productivity suffers from lack of organization and planning	physician	42	3.38	1.17	0.146
	nurse	38	3.47	1.13	
	allied health	33	3.48	1.09	
	technical	62	3.35	1.09	
	office/clerical support	68	3.56	1.19	
	service workers	15	4.20	1.01	
	Administartive	45	3.20	1.29	

	Total	303	3.45	1.16	
7. Sometimes unsure who your boss is during projects	physician	42	2.29	0.94	**0.006**
	nurse	38	2.79	1.12	
	allied health	33	2.52	1.30	
	technical	62	2.63	1.22	
	office/clerical support	68	2.49	1.11	
	service workers	15	3.53	1.30	
	Administartive	45	2.18	1.39	
	Total	303	2.53	1.21	
8. Abilities outweigh authority in selecting best people for project	physician	42	3.07	0.97	0.304
	nurse	38	2.92	1.19	
	allied health	33	2.70	0.98	
	technical	62	3.18	1.03	
	office/clerical support	68	2.99	1.01	
	service workers	15	2.53	1.30	
	Administartive	45	3.02	1.29	
	Total	303	2.98	1.09	
9. Individual judgement is not relied upon	physician	42	2.81	0.94	0.914
	nurse	38	3.00	1.09	
	allied health	33	2.97	1.13	
	technical	62	3.06	1.10	
	office/clerical support	68	3.00	1.05	
	service workers	15	3.20	1.37	
	Administartive	45	2.93	1.25	
	Total	303	2.98	1.10	
10. If you have the right approach, just go ahead	physician	42	2.52	0.77	0.49
	nurse	38	2.39	0.97	
	allied health	33	2.48	0.91	
	technical	62	2.55	0.95	
	office/clerical support	68	2.74	0.91	
	service workers	15	2.87	1.25	
	Administartive	45	2.56	0.92	
	Total	303	2.58	0.93	
11. Supervisors set guidelines and allow subordinates to take responsibility	physician	42	3.17	1.06	0.765
	nurse	38	2.97	1.22	
	allied health	33	2.97	1.02	
	technical	62	3.16	1.04	
	office/clerical support	68	3.19	1.00	
	service workers	15	2.93	1.28	
	Administartive	45	3.29	1.10	
	Total	303	3.13	1.07	
12. To get ahead at TAMC you must stick your neck out	physician	42	2.95	0.99	0.367
	nurse	38	2.92	1.08	
	allied health	33	2.82	0.88	
	technical	62	2.94	1.10	
	office/clerical support	68	3.10	1.01	
	service workers	15	2.60	1.40	

	Administartive	45	2.64	1.19
	Total	303	2.90	1.07

13. People should solve problems by themselves

physician	42	2.76	1.10	0.582
nurse	38	2.87	1.12	
allied health	33	2.39	0.66	
technical	62	2.66	0.94	
office/clerical support	68	2.75	0.89	
service workers	15	2.53	1.41	
Administartive	45	2.67	1.26	
Total	303	2.69	1.03	

14. Lots of excuses when mistakes are made

physician	42	3.00	1.10	.000
nurse	38	3.37	1.02	
allied health	33	2.76	1.00	
technical	62	3.24	1.15	
office/clerical support	68	3.44	1.07	
service workers	15	4.20	0.94	
Administartive	45	2.78	1.24	
Total	303	3.19	1.14	

15. Too many people are unwilling to take responsibility

physician	42	2.95	1.31	0.008
nurse	38	3.37	1.17	
allied health	33	3.03	1.21	
technical	62	3.16	1.10	
office/clerical support	68	3.47	1.20	
service workers	15	3.93	1.22	
Administartive	45	2.78	1.26	
Total	303	3.19	1.23	

16. The best rise to the top in our promotion system

physician	42	2.74	1.06	0.126
nurse	38	2.45	1.16	
allied health	33	2.06	0.97	
technical	62	2.58	1.22	
office/clerical support	68	2.22	0.94	
service workers	15	2.53	1.55	
Administartive	45	2.53	1.41	
Total	303	2.44	1.17	

17. Rewards outweigh threats and criticisms

physician	42	3.26	1.08	0.027
nurse	38	2.95	1.18	
allied health	33	2.94	0.97	
technical	62	2.76	1.13	
office/clerical support	68	2.72	1.08	
service workers	15	2.07	1.16	
Administartive	45	2.96	1.40	
Total	303	2.86	1.16	

18. Rewards and promotion is linked to excellence in job performance

physician	42	2.95	0.94	0.35
nurse	38	2.84	1.15	
allied health	33	2.70	1.13	
technical	62	2.47	1.08	

	office/clerical support	68	2.57	1.18	
	service workers	15	2.47	1.41	
	Administartive	45	2.80	1.34	
	Total	303	2.68	1.16	
19. Not enough reward and recognition for good work	physician	42	3.60	1.08	0.218
	nurse	38	3.82	1.23	
	allied health	33	3.88	0.99	
	technical	62	3.73	1.27	
	office/clerical support	68	3.63	1.28	
	service workers	15	4.00	1.25	
	Administartive	45	3.24	1.33	
	Total	303	3.66	1.23	
20. Lots of criticism at TAMC	physician	42	2.79	0.95	.000
	nurse	38	3.39	1.13	
	allied health	33	2.88	1.08	
	technical	62	3.35	1.03	
	office/clerical support	68	3.37	1.11	
	service workers	15	4.07	0.96	
	Administartive	45	2.82	1.28	
	Total	303	3.19	1.13	
21. Make a mistake and you will be punished	physician	42	2.81	0.80	0.39
	nurse	38	2.79	1.04	
	allied health	33	2.79	0.96	
	technical	62	2.79	1.03	
	office/clerical support	68	2.63	0.91	
	service workers	15	3.33	0.98	
	Administartive	45	2.73	1.18	
	Total	303	2.78	0.99	
22. We get ahead by playing it slow, safe, sure	physician	42	3.21	1.00	0.308
	nurse	38	3.16	0.97	
	allied health	33	3.21	0.93	
	technical	62	3.77	5.26	
	office/clerical support	68	3.07	0.90	
	service workers	15	2.33	1.11	
	Administartive	45	2.64	1.00	
	Total	303	3.16	2.55	
23 We take calculated risks at the right time	physician	42	3.05	0.79	0.705
	nurse	38	3.24	0.75	
	allied health	33	3.15	0.83	
	technical	62	3.06	0.79	
	office/clerical support	68	3.03	0.71	
	service workers	15	2.87	0.83	
	Administartive	45	2.98	0.92	
	Total	303	3.06	0.79	
24. Decision making is too cautious	physician	42	2.83	0.82	0.048
	nurse	38	3.26	0.95	
	allied health	33	2.73	0.67	

	technical	62	3.00	0.89
	office/clerical support	68	3.03	0.98
	service workers	15	3.20	1.08
	Administartive	45	2.69	0.92
	Total	303	2.95	0.91
25. Management will take a chance on a good idea	physician	42	3.44	0.73	0.433
	nurse	38	3.32	1.07
	allied health	33	3.48	0.80
	technical	62	3.47	0.80
	office/clerical support	68	3.41	0.90
	service workers	15	2.87	1.19
	Administartive	45	3.36	1.17
	Total	303	3.39	0.93
26. A friendly atmosphere prevails at TAMC	physician	42	4.07	0.78	**0.007**
	nurse	38	3.58	0.95
	allied health	33	3.82	0.88
	technical	62	3.60	1.03
	office/clerical support	68	3.50	1.11
	service workers	15	2.87	1.36
	Administartive	45	3.67	1.21
	Total	303	3.64	1.06
27. Relaxed, easy going climate at TAMC	physician	42	3.90	0.88	.000
	nurse	38	3.21	1.12
	allied health	33	2.82	1.21
	technical	62	3.27	1.09
	office/clerical support	68	3.22	1.08
	service workers	15	2.53	1.19
	Administartive	45	3.13	1.27
	Total	303	3.23	1.15
28. It is hard to get to know people at TAMC	physician	42	2.17	0.93	0.104
	nurse	38	2.37	0.85
	allied health	33	2.48	0.97
	technical	62	2.69	1.17
	office/clerical support	68	2.57	1.14
	service workers	15	2.80	1.08
	Administartive	45	2.27	0.99
	Total	303	2.47	1.05
29. At TAMC people are cool and aloof	physician	42	2.17	0.85	0.013
	nurse	38	2.61	0.97
	allied health	33	2.36	0.82
	technical	62	2.73	0.98
	office/clerical support	68	2.84	1.05
	service workers	15	2.87	1.19
	Administartive	45	2.76	1.13
	Total	303	2.63	1.01
30. Warm relationship exist between management and workers at TAMC	physician	42	3.56	0.93	0.02
	nurse	38	3.24	1.02
	allied health	33	3.21	1.08

	technical	62	3.15	1.13	
	office/clerical support	68	3.10	1.19	
	service workers	15	2.27	1.22	
	Administartive	45	3.20	1.24	
	Total	303	3.18	1.14	
31. Not much sympathy if you make a mistake	physician	42	2.74	0.83	0.058
	nurse	38	2.95	0.80	
	allied health	33	2.97	0.92	
	technical	62	3.05	1.03	
	office/clerical support	68	2.94	0.98	
	service workers	15	3.73	0.88	
	Administartive	45	2.91	1.16	
	Total	303	2.97	0.98	
32. Management talks with you about career aspirations	physician	42	3.31	1.02	**0.002**
	nurse	38	3.18	1.14	
	allied health	33	2.79	1.14	
	technical	62	2.90	1.13	
	office/clerical support	68	2.68	1.14	
	service workers	15	2.00	1.07	
	Administartive	45	3.11	1.34	
	Total	303	2.92	1.18	
33. People don't trust each other at TAMC	physician	42	2.24	0.73	**0.001**
	nurse	38	3.16	1.31	
	allied health	33	3.00	1.09	
	technical	62	3.02	1.00	
	office/clerical support	68	3.13	1.09	
	service workers	15	3.27	1.16	
	Administartive	45	2.73	1.23	
	Total	303	2.92	1.12	
34. Management philosophy values how employee's feel	physician	42	3.31	0.72	0.144
	nurse	38	2.95	0.93	
	allied health	33	2.88	1.22	
	technical	62	3.00	1.02	
	office/clerical support	68	2.84	1.00	
	service workers	15	2.47	1.13	
	Administartive	45	2.96	1.17	
	Total	303	2.95	1.03	
35. Employee's can count on management support in difficult assignments	physician	42	3.88	0.71	0.015
	nurse	38	3.34	1.05	
	allied health	33	3.76	1.03	
	technical	62	3.74	1.01	
	office/clerical support	68	3.38	1.07	
	service workers	15	3.00	1.20	
	Administartive	45	3.67	1.11	
	Total	303	3.58	1.04	

36. High performance standards are set at
TAMC

	physician	42	3.94	0.77	0.38
	nurse	38	3.79	0.87	
	allied health	33	4.00	0.71	
	technical	62	3.77	1.00	
	office/clerical support	68	3.62	1.05	
	service workers	15	3.53	0.92	
	Administartive	45	3.87	1.04	
	Total	303	3.79	0.94	

37. Management believes that no job is so
well done that it couldn't be done better

	physician	42	3.55	0.97	0.544
	nurse	38	3.42	1.13	
	allied health	33	3.61	0.83	
	technical	62	3.44	0.99	
	office/clerical support	68	3.56	0.89	
	service workers	15	3.00	1.13	
	Administartive	45	3.51	1.08	
	Total	303	3.49	0.99	

38. Pressure exists to continually improve
personal and group performance

	physician	42	3.38	0.94	0.404
	nurse	38	3.66	0.97	
	allied health	33	3.64	0.90	
	technical	62	3.45	1.10	
	office/clerical support	68	3.31	1.00	
	service workers	15	3.07	1.16	
	Administartive	45	3.44	1.12	
	Total	303	3.44	1.02	

39. Management believes that if people are
happy, productivity will take care of itself

	physician	42	2.86	0.91	0.299
	nurse	38	2.92	1.17	
	allied health	33	2.76	1.12	
	technical	62	3.15	1.05	
	office/clerical support	68	2.78	1.09	
	service workers	15	2.60	1.06	
	Administartive	45	3.11	1.23	
	Total	303	2.92	1.10	

40. To get ahead it is more important to get
along than to be a high producer

	physician	42	3.02	0.90	0.076
	nurse	38	3.29	1.09	
	allied health	33	3.24	0.94	
	technical	62	3.32	1.10	
	office/clerical support	68	3.15	1.08	
	service workers	15	3.60	0.91	
	Administartive	45	2.78	1.15	
	Total	303	3.16	1.06	

41. At TAMC people don't take pride in their
performance

	physician	42	2.23	0.81	.000
	nurse	38	2.68	1.14	
	allied health	33	2.45	1.00	
	technical	62	2.79	1.15	
	office/clerical support	68	2.96	1.15	

	service workers	15	3.27	1.33
	Administartive	45	2.07	1.12
	Total	303	2.62	1.14

42. The best way to make a good impression is to avoid arguments and disagreements

physician	42	3.21	1.00	0.098
nurse	38	3.34	1.19	
allied health	33	3.55	1.03	
technical	62	3.44	1.10	
office/clerical support	68	3.44	1.03	
service workers	15	3.93	0.96	
Administartive	45	3.02	1.23	
Total	303	3.37	1.10	

43. Management feels conflict between competing departments can be healthy

physician	42	2.71	0.81	0.665
nurse	38	2.79	0.87	
allied health	33	2.94	0.83	
technical	62	2.66	0.81	
office/clerical support	68	2.78	0.81	
service workers	15	2.60	0.91	
Administartive	45	2.62	0.86	
Total	303	2.73	0.83	

44. Employees are encouraged to speak their minds even if disagreeing

physician	42	3.00	1.01	0.591
nurse	38	2.79	1.09	
allied health	33	2.79	0.96	
technical	62	2.82	1.27	
office/clerical support	68	2.88	1.14	
service workers	15	2.47	1.19	
Administartive	45	3.09	1.12	
Total	303	2.87	1.13	

45. At meetings the goal is to make decisions smoothly and quickly

physician	42	3.29	0.74	0.571
nurse	38	3.03	1.05	
allied health	33	3.00	0.87	
technical	62	3.23	0.89	
office/clerical support	68	3.34	1.02	
service workers	15	3.20	0.94	
Administartive	45	3.11	1.13	
Total	303	3.19	0.96	

46. People are proud to belong to TAMC

physician	42	3.79	0.72	0.179
nurse	38	3.39	1.00	
allied health	33	3.73	0.88	
technical	62	3.35	1.09	
office/clerical support	68	3.40	1.04	
service workers	15	3.20	0.68	
Administartive	45	3.49	1.12	
Total	303	3.48	0.99	

47. I am a member of a well functioning team

physician	42	3.60	0.96	0.149
nurse	38	3.45	1.08	
allied health	33	3.58	1.00	

	technical	62	3.42	1.11	
	office/clerical support	68	3.49	1.18	
	service workers	15	2.67	0.98	
	Administartive	45	3.29	1.24	
	Total	303	3.42	1.11	
48. People are not loyal to TAMC	physician	42	2.37	0.79	**0.029**
	nurse	38	2.76	1.17	
	allied health	33	2.42	1.00	
	technical	62	2.92	1.06	
	office/clerical support	68	2.79	1.07	
	service workers	15	2.87	1.13	
	Administartive	45	2.36	1.15	
	Total	303	2.66	1.07	
49. People at TAMC just look out for themselves	physician	42	2.61	0.82	**0.001**
	nurse	38	3.11	1.18	
	allied health	33	3.09	1.04	
	technical	62	3.47	1.08	
	office/clerical support	68	3.49	1.19	
	service workers	15	3.73	1.22	
	Administartive	45	2.98	1.37	
	Total	303	3.21	1.17	
50. Leadership is actively involved in promoting TQM	physician	42	3.86	0.78	0.194
	nurse	38	3.50	0.92	
	allied health	33	3.48	0.80	
	technical	62	3.56	0.84	
	office/clerical support	68	3.38	0.91	
	service workers	15	3.27	0.88	
	Administartive	45	3.51	1.14	
	Total	303	3.52	0.91	
51. Senior management action shows strong commitment to TQM	physician	42	3.86	0.87	0.06
	nurse	38	3.42	0.95	
	allied health	33	3.36	0.99	
	technical	62	3.47	1.05	
	office/clerical support	68	3.32	0.95	
	service workers	15	3.07	1.03	
	Administartive	45	3.22	1.20	
	Total	303	3.42	1.02	
52. My supervisor is strongly committed to TQM	physician	42	3.76	0.82	0.383
	nurse	38	3.61	1.03	
	allied health	33	3.55	1.00	
	technical	62	3.47	1.11	
	office/clerical support	68	3.53	1.09	
	service workers	15	3.00	1.13	
	Administartive	45	3.49	1.10	
	Total	303	3.53	1.05	
53. TQM is important to me	physician	42	3.56	1.12	0.213
	nurse	38	4.03	0.91	
	allied health	33	3.82	0.88	

	technical	62	4.00	0.85
	office/clerical support	68	4.01	0.92
	service workers	15	4.00	1.00
	Administartive	45	3.98	0.97
	Total	303	3.92	0.95

54. I understand my role in contributing to TQM goals

physician	42	3.64	1.03	0.202
nurse	38	3.71	1.09	
allied health	33	3.52	0.87	
technical	62	4.03	0.81	
office/clerical support	68	3.74	0.94	
service workers	15	3.93	0.70	
Administartive	45	3.78	1.04	
Total	303	3.77	0.95	

55. I understand how TQM is being implemented at TAMC

physician	42	3.20	1.15	0.386
nurse	38	3.37	0.88	
allied health	33	3.12	0.78	
technical	62	3.56	0.97	
office/clerical support	68	3.35	1.09	
service workers	15	3.20	1.01	
Administartive	45	3.49	1.12	
Total	303	3.36	1.02	

56. I don't know much about TQM

physician	42	2.10	1.12	0.247
nurse	38	1.97	0.88	
allied health	33	2.45	1.20	
technical	62	2.26	1.12	
office/clerical support	68	2.41	1.24	
service workers	15	2.40	1.18	
Administartive	45	1.98	1.23	
Total	303	2.22	1.15	

1. Questions listed are in abbreviated form.
2. Question means are not recoded and reflect actual values
3. Significance listed is from One-way ANOVA test

APPENDIX 3

ONE-WAY ANOVA RESULTS FOR SEVICE STATUS

	Status	N	MEA	Std. Dev	SIG
1. Jobs are clearly defined and logically structured	Enlisted	73	3.32	1.07	**0.009**
	Officer	75	3.75	0.86	
	Civilian	155	3.35	1.02	
	Total	303	3.45	1.01	
2. Is it unclear who has formal authority	Enlisted	73	2.94	1.44	**0.011**
	Officer	75	2.47	1.20	
	Civilian	155	3.01	1.28	
	Total	303	2.86	1.32	
3. Policies and organizational structure clearly explained	Enlisted	73	3.26	1.19	**0.048**
	Officer	75	3.68	1.02	
	Civilian	155	3.57	1.04	
	Total	303	3.53	1.08	
4. Red tape is kept to a minimum	Enlisted	73	2.71	1.09	0.124
	Officer	75	2.54	1.12	
	Civilian	155	2.85	1.03	
	Total	303	2.74	1.07	
5. Excessive rules make it difficult for new ideas to receive consideration	Enlisted	73	3.25	1.21	**0.048**
	Officer	75	2.87	1.20	
	Civilian	155	3.25	1.10	
	Total	303	3.15	1.16	
6. Productivity suffers from lack of organization and planning	Enlisted	73	3.56	1.06	0.656
	Officer	75	3.39	1.20	
	Civilian	155	3.43	1.20	
	Total	303	3.45	1.17	
7. Unsure who your boss is sometimes during projects	Enlisted	73	2.68	1.34	**0.040**
	Officer	75	2.23	0.98	
	Civilian	155	2.61	1.24	
	Total	303	2.53	1.21	
8. Abilities outweigh authority in selecting best people for a project	Enlisted	73	2.93	1.24	0.869
	Officer	75	3.03	1.03	
	Civilian	155	2.98	1.07	
	Total	303	2.98	1.10	
9. Individual judgement is not relied upon	Enlisted	73	3.10	1.12	0.185
	Officer	75	2.79	0.98	
	Civilian	155	3.03	1.15	
	Total	303	2.98	1.10	
10. If you have the right approach, just go ahead	Enlisted	73	2.44	1.01	0.089
	Officer	75	2.47	0.83	
	Civilian	155	2.69	0.93	
	Total	303	2.58	0.93	
11. Supervisors set guidelines and allow subordinates to take responsibility	Enlisted	73	3.00	1.15	0.113
	Officer	75	3.00	1.14	
	Civilian	155	3.26	0.99	
	Total	303	3.13	1.07	
12. To get ahead at TAMC you must stick your neck out	Enlisted	73	2.88	1.22	0.776
	Officer	75	2.84	0.93	
	Civilian	155	2.94	1.07	
	Total	303	2.90	1.07	

13. People should solve problems by themselves	Enlisted	73	2.49	1.10	0.169
	Officer	75	2.76	1.06	
	Civilian	155	2.74	0.97	
	Total	303	2.69	1.03	
14. Lots of excuses when mistakes are made	Enlisted	73	3.46	1.23	**0.008**
	Officer	75	2.88	1.04	
	Civilian	155	3.22	1.12	
	Total	303	3.19	1.15	
15. Too many people are unwilling to take responsibility	Enlisted	73	3.35	1.28	**0.047**
	Officer	75	2.89	1.18	
	Civilian	155	3.26	1.21	
	Total	303	3.19	1.23	
16. The best rise to the top in our promotion system	Enlisted	73	2.50	1.40	0.250
	Officer	75	2.59	1.05	
	Civilian	155	2.33	1.09	
	Total	303	2.43	1.16	
17. Rewards outweigh threats and criticisms	Enlisted	73	2.61	1.34	**0.008**
	Officer	75	3.19	1.07	
	Civilian	155	2.81	1.09	
	Total	303	2.85	1.16	
18. Rewards and promotion is linked to excellence in job performance	Enlisted	73	2.54	1.27	0.218
	Officer	75	2.87	0.99	
	Civilian	155	2.65	1.18	
	Total	303	2.68	1.16	
19. Not enough reward and recognition for good work	Enlisted	73	3.69	1.37	0.951
	Officer	75	3.65	1.14	
	Civilian	155	3.64	1.21	
	Total	303	3.66	1.23	
20. Lots of criticism at TAMC	Enlisted	73	3.47	1.19	**0.010**
	Officer	75	2.91	1.05	
	Civilian	155	3.19	1.12	
	Total	303	3.19	1.13	
21. Make a mistake and you will be punished	Enlisted	73	3.14	1.10	**0.002**
	Officer	75	2.68	0.84	
	Civilian	155	2.65	0.97	
	Total	303	2.77	0.99	
22. We get ahead by playing it slow, safe, sure	Enlisted	73	3.71	4.91	0.112
	Officer	75	2.92	1.01	
	Civilian	155	3.03	0.96	
	Total	303	3.17	2.55	
23 We take calculated risks at the right time	Enlisted	73	2.97	0.90	0.053
	Officer	75	3.25	0.79	
	Civilian	155	3.01	0.73	
	Total	303	3.06	0.79	
24. Decision making is too cautious	Enlisted	73	3.00	0.99	0.114
	Officer	75	2.76	0.80	
	Civilian	155	3.02	0.92	
	Total	303	2.95	0.92	

25. Management will take a chance on a good idea	Enlisted	73	3.28	1.00	0.356
	Officer	75	3.50	0.83	
	Civilian	155	3.39	0.96	
	Total	303	3.39	0.94	
26. A friendly atmosphere prevails at TAMC	Enlisted	73	3.36	1.32	**0.001**
	Officer	75	4.01	0.80	
	Civilian	155	3.58	0.99	
	Total	303	3.64	1.06	
27. Relaxed, easy going climate at TAMC	Enlisted	73	3.03	1.24	**0.006**
	Officer	75	3.59	1.04	
	Civilian	155	3.15	1.12	
	Total	303	3.23	1.15	
28. It is hard to get to know people at TAMC	Enlisted	73	2.67	1.22	**0.028**
	Officer	75	2.21	0.89	
	Civilian	155	2.50	1.02	
	Total	303	2.47	1.05	
29. At TAMC people are cool and aloof	Enlisted	73	2.86	1.05	**0.001**
	Officer	75	2.28	0.91	
	Civilian	155	2.69	1.01	
	Total	303	2.63	1.02	
30. Warm relationship exist between management and workers at TAMC	Enlisted	73	2.90	1.22	**0.004**
	Officer	75	3.51	0.94	
	Civilian	155	3.14	1.15	
	Total	303	3.17	1.14	
31. Not much sympathy if you make a mistake	Enlisted	73	3.13	1.19	0.106
	Officer	75	2.79	0.84	
	Civilian	155	2.99	0.93	
	Total	303	2.97	0.98	
32. Management talks with you about career aspirations	Enlisted	73	2.92	1.22	**0.000**
	Officer	75	3.41	1.01	
	Civilian	155	2.67	1.16	
	Total	303	2.91	1.18	
33. People don't trust each other at TAMC	Enlisted	73	3.19	1.22	**0.000**
	Officer	75	2.47	1.02	
	Civilian	155	3.01	1.06	
	Total	303	2.92	1.12	
34. Management philosophy values how employee's feel	Enlisted	73	2.85	1.11	0.231
	Officer	75	3.12	0.87	
	Civilian	155	2.92	1.06	
	Total	303	2.95	1.03	
35. Employee's can count on management support in difficult assignments	Enlisted	73	3.40	1.16	**0.029**
	Officer	75	3.84	0.82	
	Civilian	155	3.54	1.05	
	Total	303	3.58	1.04	
36. High performance standards are set at TAMC	Enlisted	73	3.72	1.06	0.172
	Officer	75	3.97	0.77	
	Civilian	155	3.74	0.95	
	Total	303	3.79	0.94	

37. Management believes that no job is so well done that it couldn't be done better	Enlisted	73	3.47	1.05	0.757
	Officer	75	3.56	0.96	
	Civilian	155	3.46	0.98	
	Total	303	3.49	0.99	
38. Pressure exists to continually improve personal and group performance	Enlisted	73	3.33	1.16	0.078
	Officer	75	3.67	0.92	
	Civilian	155	3.37	0.99	
	Total	303	3.44	1.03	
39. Management believes that if people are happy productivity will take care of itself	Enlisted	73	2.86	1.21	0.791
	Officer	75	2.89	0.98	
	Civilian	155	2.96	1.10	
	Total	303	2.92	1.10	
To get ahead it is more important to get along than to be a high producer	Enlisted	73	3.19	1.22	0.248
	Officer	75	2.99	1.06	
	Civilian	155	3.23	0.98	
	Total	303	3.16	1.06	
41. At TAMC people don't take pride in their performance	Enlisted	73	2.79	1.29	**0.002**
	Officer	75	2.21	0.90	
	Civilian	155	2.72	1.13	
	Total	303	2.61	1.14	
42. The best way to make a good impression is to avoid arguments and disagreements	Enlisted	73	3.46	1.20	0.166
	Officer	75	3.16	1.09	
	Civilian	155	3.43	1.05	
	Total	303	3.37	1.10	
43. Management feels conflict between competing departments can be healthy	Enlisted	73	2.72	0.88	0.908
	Officer	75	2.71	0.80	
	Civilian	155	2.75	0.82	
	Total	303	2.74	0.83	
44. Employees are encouraged to speak their minds even if disagreeing	Enlisted	73	2.65	1.26	0.167
	Officer	75	2.96	1.02	
	Civilian	155	2.93	1.11	
	Total	303	2.87	1.13	
45. At meetings the goal is to make decisions smoothly and quickly	Enlisted	73	3.04	1.12	0.294
	Officer	75	3.23	0.89	
	Civilian	155	3.25	0.91	
	Total	303	3.20	0.96	
46. People are proud to belong to TAMC	Enlisted	73	3.26	1.16	0.065
	Officer	75	3.64	0.88	
	Civilian	155	3.51	0.95	
	Total	303	3.48	0.99	
47. I am a member of a well functioning team	Enlisted	73	3.14	1.23	**0.026**
	Officer	75	3.63	1.00	
	Civilian	155	3.45	1.09	
	Total	303	3.42	1.11	
48. People are not loyal to TAMC	Enlisted	73	2.96	1.17	**0.001**
	Officer	75	2.33	0.93	
	Civilian	155	2.66	1.05	
	Total	303	2.65	1.07	

49. People at TAMC just look out for themselves	Enlisted	73	3.47	1.28	**0.000**
	Officer	75	2.75	1.04	
	Civilian	155	3.30	1.13	
	Total	303	3.20	1.18	
50. Leadership is actively involved in promoting TQM	Enlisted	73	3.33	0.99	**0.003**
	Officer	75	3.81	0.90	
	Civilian	155	3.47	0.86	
	Total	303	3.52	0.91	
51. Senior management action shows strong commitment to TQM	Enlisted	73	3.21	1.14	**0.029**
	Officer	75	3.65	1.02	
	Civilian	155	3.39	0.95	
	Total	303	3.41	1.02	
52. My supervisor is strongly committed to TQM	Enlisted	73	3.40	1.16	0.076
	Officer	75	3.76	0.94	
	Civilian	155	3.47	1.03	
	Total	303	3.53	1.05	
53. TQM is important to me	Enlisted	73	3.97	1.02	0.703
	Officer	75	3.85	1.06	
	Civilian	155	3.94	0.86	
	Total	303	3.92	0.95	
54. I understand my role in contributing to TQM goals	Enlisted	73	3.83	0.96	0.818
	Officer	75	3.76	1.04	
	Civilian	155	3.75	0.91	
	Total	303	3.77	0.95	
55. I understand how TQM is being implemented at TAMC	Enlisted	73	3.42	1.10	0.874
	Officer	75	3.35	1.13	
	Civilian	155	3.34	0.94	
	Total	303	3.36	1.02	
56. I don't know much about TQM	Enlisted	73	2.26	1.33	**0.018**
	Officer	75	1.89	0.99	
	Civilian	155	2.34	1.10	
	Total	303	2.21	1.14	

1. Questions listed are in abbreviated form.
2. Question means are not recoded and reflect actual values
3. Significance listed is from One-way ANOVA test

APPENDIX 4

MEAN CONSTRUCT AND SELECT QUESTION COMPARISON

Physician Responses

Reward
TQM
Support
Standards
Identity
Warmth
Structure

1 2 3 4 5

Mean Response Value
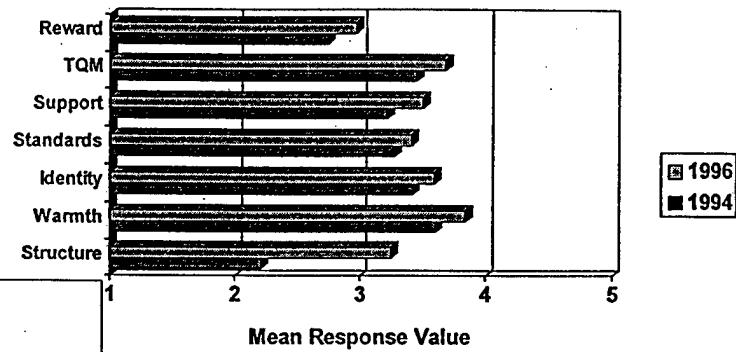
1996
1994

Chart 1

Service Workers Responses

Reward
TQM
Support
Standards
Identity
Warmth
Structure

1 2 3 4 5

Mean Response Value
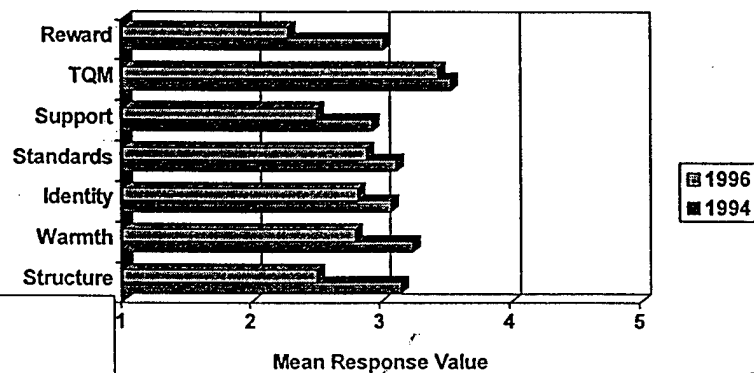
1996
1994

Chart 2

Supervisor-Non Supervisor Responses (1996)
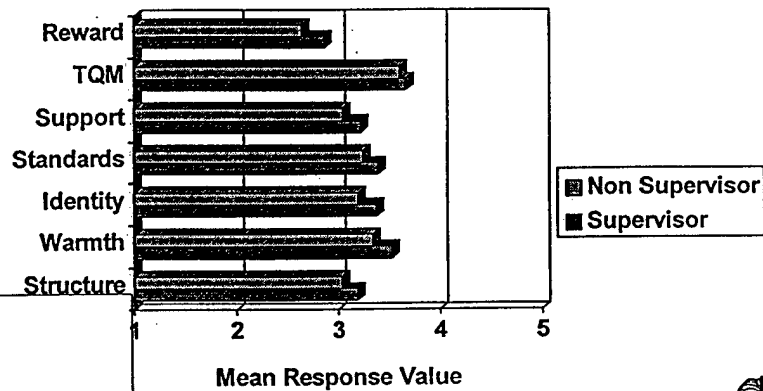
Reward
TQM
Support
Standards
Identity
Warmth
Structure

■ Non Supervisor
■ Supervisor

1   2   3   4   5

Mean Response Value

Chart 3

Make a mistake and you will be punished

Civilians

Officers

Enlisted

1   2   3   4   5
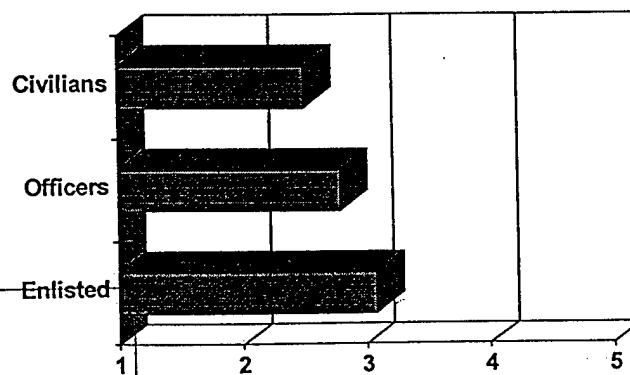
1996 DON Employees, n=100   α=.04   1=Strongly disagree, 5=Strongly Agree

Chart 4

Management talks with you about career aspirations
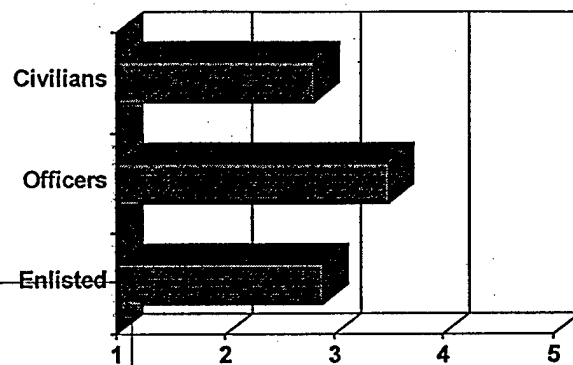
1996 DON Employees, n=100 α=.05   1=Strongly disagree, 5=Strongly Agree

Chart 5

Management values how I feel
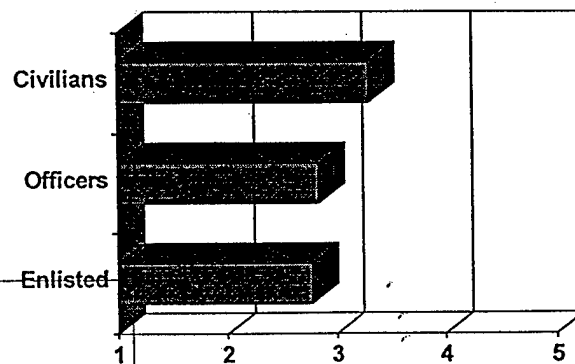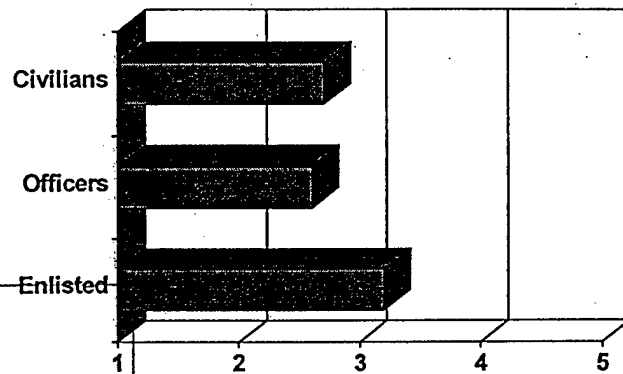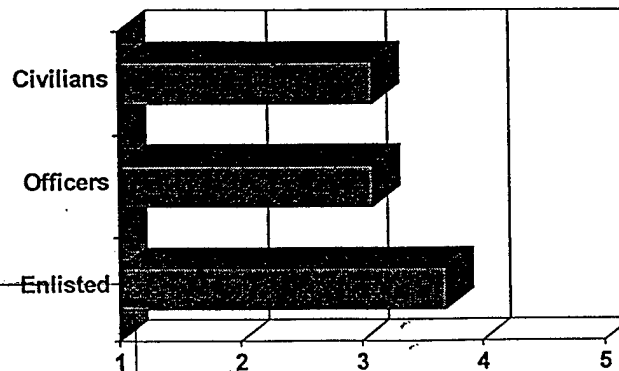

1996 DON Employees, n=100 α=.04   1=Strongly disagree, 5=Strongly Agree

Chart 6

Tripler Regional Medical Center

At TAMC, people don't take pride in their performance

Civilians

Officers

Enlisted

1   2   3   4   5
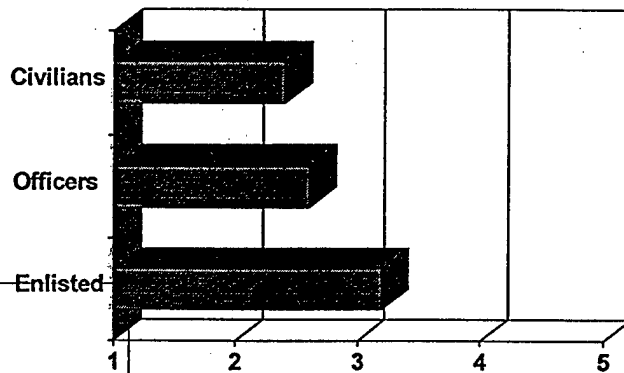
1996 DON Employees, n=100 a=.02   1=Strongly disagree, 5=Strongly Agree

Chart 7

Tripler Regional Medical Center

Employees are encouraged to speak their minds, even if disagreeing
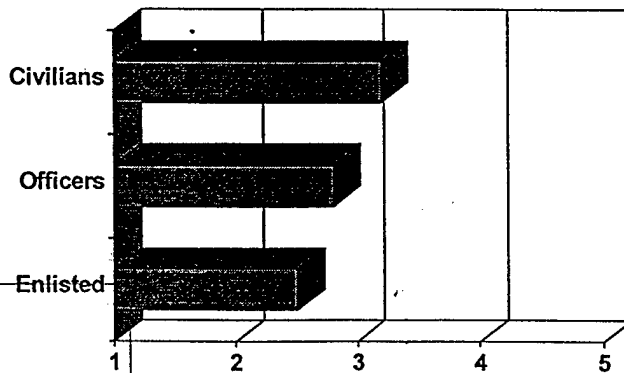
Civilians

Officers

Enlisted

1   2   3   4   5

1996 DON Employees, n=100 a=.03   1=Strongly disagree, 5=Strongly Agree

Chart 8

People are not loyal to Tripler

1996 DON Employees, n=100 α=.04   1=Strongly disagree, 5=Strongly Agree

Chart 9

People at Tripler just look out for themselves

1996 DON Employees, n=100 α=.04   1=Strongly disagree, 5=Strongly Agree

Chart 10

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